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AMERICAN
DYESTUFF REPORTER

Devoted to Textile Chemistry
BLEACHING • DYEING • PRINTING • FINISHING

Contents

VOLUME 43 APRIL 26, 1954 NUMBER 9

• *Departments*

News P261

• *Proceedings of the American Association of Textile Chemists and Colorists*

AATCC Calendar P261

General Calendar P261

Employment Register P261

AATCC Research Committee Report:—

New Test for Scourability of Spinning Oil. P263
Committee on Processes of Continuous Wool Scouring

1953 Annual Convention:—

Woolen and Worsted Spun Yarn in Hosiery. P266
Elwood W Munz

Tenth Olney Medal Award to Roland Everett Derby P270

Roland Everett Derby . . . The Medalist—The Man P271
Albert E Sampson

Roland Everett Derby . . . The Medalist—The Scientist P272
Harold W Leitch

Presentation of Medal..... P273
J Robert Bonnar

Address of the Medalist..... P274
Roland E Derby

Annual Banquet P278

Reports from the Local Sections P282

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Proceedings of the
American Association of Textile Chemists and Colorists

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APRIL 26, 1954

AATCC CALENDAR

COUNCIL
1954—Apr 30 (Atlantic City), June 15, Sept 15, Nov 19.
1955—Jan 21, Apr 15, June 17

NATIONAL CONVENTIONS
Sept 15-18, 1954 (Atlanta Biltmore, Atlanta, Ga); Sept 21-23, 1955 (Chalfonte-Haddon Hall, Atlantic City, N J; 1956 (New York); 1957 (Boston).

HUDSON-MOHAWK SECTION
May 14 (Albany); June 18 (Outing).

MID-WEST SECTION
June 11-13 (Annual Outing—Lake Lawn Lodge, Delavan, Wis).

NEW YORK SECTION
May 14 (Swiss Chalet); June 18 (Outing, North Jersey Country Club, Wayne, N J).

NORTHERN NEW ENGLAND SECTION
June 11 (Outing—Merrimack Valley C C, Methuen, Mass); Oct 8 (Colonial C C, Lynnfield, Mass); Dec 10 (Woodland Golf Club, Auburndale, Mass).

PIEDMONT SECTION
June 11-12 (Outing Mayview Manor, Blowing Rock, N C); Oct 16 (Hotel Barringer, Charlotte, N C).

PHILADELPHIA SECTION
May 21 (Outing—Manufacturers Golf & Country Club, Oreland, Pa); Sept 24, Oct 29 (Penn-Sherwood Hotel, Philadelphia, Pa); Dec 3 (Kugler's Restaurant, Philadelphia)

RHODE ISLAND SECTION
Apr 29 (Wannamoisett Country Club, Rumford, R I); June 11 (Outing—Wannamoisett C C); Oct 14 (Johnson's); Dec 2 (Annual Meeting—Sheraton Biltmore, Providence, R I).

SOUTH CENTRAL SECTION
June 4-5 (Summer Outing — Chattanooga Golf and Country Club); Dec 4 (Hotel Patten, Chattanooga).

SOUTHEASTERN SECTION
May 14-15 (Outing—Radium Springs, Ga); Dec 11 (Atlanta-Biltmore, Atlanta, Ga).

WESTERN NEW ENGLAND SECTION
May 14 (Ladies Night—Waverly Inn, Cheshire, Conn); June 18 (Outing—Chase Country Club, Waterbury, Conn); Oct 1, Nov 12, Dec 10 (Rapp's).

EMPLOYMENT REGISTER

This column is open for two insertions per year, per member, without charge. Blanks can be obtained from, and filed with, the Secretary of the Association, Lowell Textile Institute, Lowell, Mass. It is understood that these will be open to inspection by prospective employers who can obtain further information from the Secretary.

54-6
Education: textile school, Germany.
Experience: 30 years as dyer and superintendent in U S and Canada; all types of hosiery.
Age: 57; married; references; position as head dyer desired, location not restricted. 4-12, 4-26

54-7
Education: expecting BS in chemistry and dyeing, Bradford Durfee Technical Inst, June, 1954.
Experience: laboratory technician, three summers, on detergents and dyestuff application.
Age: 21; single; references; position as textile chemist desired; New York area, New Jersey or Connecticut preferred, but not essential. 4-26, 5-10

54-8
Education: expecting BS in chemistry and dyeing, Bradford Durfee Technical Inst, June, 1954.
Experience: two years in print works.
Age: 30; single; veteran; references; position as chemist or dyer desired, location immaterial. 4-26, 5-10

GENERAL CALENDAR

AMERICAN CHEMICAL SOCIETY
National Chemical Exposition—Oct 12-15, Chicago, Ill.

AMERICAN LEATHER CHEMISTS' ASSOCIATION
1954 Convention—June 6, Bedford Spring Hotel, Bedford, Pa.

AMERICAN SOCIETY FOR QUALITY CONTROL
Conference of the Carolinas, Georgia, Tennessee, Birmingham and Huntsville Sections—Nov 5-7, Chattanooga, Tenn.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS
Spring meeting of the Textile Engineering Division—May 21, Hotel Sheraton, Boston, Mass.

AMERICAN SOCIETY FOR TESTING MATERIALS
Annual Meeting—June 13-18, Sherman and Morrison Hotels, Chicago, Ill.

AMERICAN TEXTILE MACHINERY ASSOCIATION
Exhibit of American Textile Machinery, April 26-May 1, Atlantic City Exhibition Hall, Atlantic City, N J.

AMERICAN WELDING SOCIETY
2nd Welding & Allied Industry Exposition—May 5-7, Memorial Auditorium, Buffalo, N Y

CANADIAN ASSOCIATION OF TEXTILE CHEMISTS AND COLOURISTS
Quebec Section—June 19 (Annual Golf Tournament).

CHAMBRE SYNDICALE TRAMAGRAS
International Detergent Congress—Aug 30-Sept 5, The Sorbonne, Paris, France.

DEUTSCHE GESELLSCHAFT FUR CHEMISCHES APPARATEWESEN
Achema XI—May 14-22, 1955, Frankfurt am Main, Germany.

DRYSALTERS CLUB OF NEW ENGLAND
April 30 (Hotel Vendome, Boston); June 25 (Annual Outing, Wachusett Country Club, West Boylston, Mass).

THE FIBER SOCIETY
Spring Meeting—May 5-6, Monticello Hotel and Thomas Jefferson Inn, Charlottesville, Va.
Fall Meeting—Sept 13-14, McGill University, Montreal, Canada.

GORDAN RESEARCH CONFERENCES, AAAS
July 12-16, Colby Jr College, New London, N H.

INTERNATIONAL CONGRESS OF MAN-MADE FIBERS
May 31-June 3, Paris, France

LOWELL TECHNOLOGICAL INSTITUTE ALUMNI ASSOCIATION
Annual Reunion—April 28, Haddon Hall, Atlantic City, N J.

PHILADELPHIA TEXTILE INSTITUTE ALUMNI ASSOCIATION
53rd Annual Reunion, June 11, Manufacturers Golf & Country Club, Oreland, Pa.

SOUTHERN TEXTILE EXPOSITION
October 4-9 (Textile Hall, Greenville, S C).

"AATCC Research—Key to Quality"

SYMPOSIUM TO BE HELD AT HOTEL STATLER, NEW YORK, MAY 19, 1954

Program

MORNING TECHNICAL SESSION

9:30 AM to 11:30 AM

JACKSON A WOODRUFF, *Chairman*
EDMUND A LEONARD, *Cochairman*

Dyeing Session

PAUL J CHOQUETTE, *Chairman*
MATTHEW J BABEY, *Cochairman*

"Cellulosic Blends" — Walter Hindle (Chemstrand)
"Newer Blends of Wool with Synthetics" —Dr Hans Luttringhaus (General Dyestuff)
"Solution Dyeing of Acetate"—Dr Frank Tesi (Celanese)
"Solution Dyeing of Rayon"—Leslie L Walmsley (American Viscose)
"Solvent Dyeing of Acetate" — Paul C Duggan (Celanese)

Finishing Session

ARTHUR R WACHTER, *Chairman*
P J FYNN, *Cochairman*

"Finishing of the Newer Synthetics"—Harry Moore (Fair Lawn Finishing)
"Finishing of Rayon"—James H Riddle (North Carolina Finishing)
"New Finishing Machinery"—James H Hunter (James Hunter Machine)

General Session

CAMERON A BAKER, *Chairman*
ROBERT C ALLISON, *Cochairman*

"AATCC Control Tests"—Dr Thomas G Hawley, Jr (United Merchants)
"Static in Textiles"—Kenneth H Barnard (American Cyanamid)
"Flammability of Clothing Textiles"—George S Buck, Jr (National Cotton Council)
"Dry Cleaning Techniques"—Albert E Johnson (National Institute of Drycleaning)

LUNCHEON SESSION

12:15 PM to 2:00 PM

Presiding
LEONARD S LITTLE, *Chairman, AATCC Executive Committee on Research*

Speakers
J ROBERT BONNAR, *President, AATCC*
ALBERT E JOHNSON, *Chairman, AATCC Corporate Membership Committee*

Guest Speaker
J GORDON DAKINS

TICKETS

Members of the AATCC have or will receive shortly copies of the notice of the meeting, together with application blanks for individual tickets and tables. Others may reserve tickets at $10 each by making application to George A Jonic, Treasurer, AATCC Symposium, Dyestuff Department, American Cyanamid Company, 48 West 38th Street, New York 18, N Y. Complete tables of ten are also available. Tickets cover all technical sessions, registration, and luncheon charges. The tickets will be available at the registration desk on arrival at the hotel.

EXHIBITS

Under the direction of Richard R Frey, Assistant Secretary of AATCC, and Dr Harold W Stiegler, AATCC Research Director, a number of exhibits showing the latest developments in test methods and instruments will be on display in the ballroom foyer from 9 am to 4 pm.

AFTERNOON PANEL DISCUSSION

2:00 PM to 4:00 PM

CHARLES W DORN, *Chairman*
CHARLES A SYLVESTER, *Cochairman*

Fibers

C W BENDIGO, *Chairman*
Panelists

(To Be Announced)

Dyeing and Finishing

FRANCIS S RICHARDSON, *Chairman*
Panelists

(To Be Announced)

Quality and Quality Control

HENRY F HERRMANN, *Chairman*
Panelists

Arthur R Wachter (American Viscose)
A C Layton Newsom (Durene Association)
Everett C Atwell (Burlington)
Rudolph C Geering (Princeton Knitting)
Robert C Allison (Geigy)

GUEST SPEAKER

We are honored to announce that we have been extremely fortunate in securing J Gordon Dakins, Executive Vice President and Treasurer of the National Retail Dry Goods Association, a top industry figure, as featured guest speaker at the Symposium Luncheon. Mr Dakins' subject will be "Textiles' Fight for the Consumer's Dollar."

COMMITTEE

LEONARD S LITTLE, *Chairman* — KENNETH H BARNARD, *Secretary*

Robert C Allison, Matthew J Babey, Cameron A Baker, George L Baxter, C W Bendigo, J Robert Bonnar, Paul J Choquette, Charles W Dorn, James A Doyle, Richard R Frey, P J Fynn, Leroy Hamilton, Samuel L Hayes, John H Hennessey, Henry F Herrmann, George H Hotte, Kenneth A Howry, Albert E Johnson, Norman A Johnson, George A Jonic, Edmund A Leonard, George O Linberg, Francis S Richardson, Harold W Stiegler, Charles A Sylvester, Lawrence S Thompson, Arthur R Wachter, Charles A Whitehead, Jackson A Woodruff, Henry L Young

AATCC Research Committee Report——

NEW TEST FOR SCOURABILITY OF SPINNING OIL*

COMMITTEE ON PROCESSES OF CONTINUOUS WOOL SCOURING

Laboratory tests hitherto published on scourability of spinning oils are miniature replicates of batch-type scouring operations. They have room for improvement in two respects: the development of a satisfactory laboratory method for uniformly applying oils to small amounts of yarn for test and the detection of small differences in oil scourability which are revealed in continuous plant scouring. The Committee on Processes of Continuous Wool Scouring has overcome these problems by developing two methods for uniform laboratory application of oils to yarn and by scouring the yarns in a continuous rather than a batch process. The two alternative methods for oil application are as follows: dipping dry-cleaned wool yarn into a toluene solution of the oil to be tested, extracting to a uniform level in a laboratory centrifugal extractor and drying; and single-end padding with a laboratory padder containing a solution of the oil to be tested, followed by drying. The continuous scouring procedure is AATCC Tentative Test Method 64-52, which shows up small differences in oil scourability by revealing the combined effects of oil build-up and detergent exhaustion as the scouring proceeds.

COMMITTEE

E A Leonard, *Chairman*
Alexander Smith, Inc
H C Haller, *Secretary*
Forstmann Woolen Co
H C Borghetty
(R E Wolfram, *Alternate*)
Rohm & Haas Co
J H Binns
American Aniline Products, Inc
W J Elliott
Bigelow-Sanford Carpet Co, Inc
J C Harris
(M R Sullivan, *Alternate*)
Monsanto Chemical Co

I BACKGROUND

FOLLOWING the development of Tentative Test Method 64-52 *(1)* on Continuous Scouring of Raw Grease Wool, this Committee turned its attention to the process of continuous scouring wool yarns. It was recognized that most skein dyeing of wool yarn is preceded by continuous scouring, wherein the skeins are carried successively through the bowls of a three- or four-bowl machine containing detergent solutions and rinse water. The purpose of the scouring is to remove spinning oil, which would otherwise cause dye resist, and other foreign matter, so as to present for dyeing yarns of light uniform color free as possible from agents that would impede levelness, penetration, and exhaust.

It has also been generally recognized that yarns to be dyed should be spun with a lubricant easily removable in the scouring process, else uneven dyeing will result. This is so because difficultly scourable oil is removed ununiformly from skein to skein. The first few hundred or few thousand skeins scoured after a fresh detergent solution is put into the machine will be well cleaned, but the build-up of oil or depletion of detergent in the machine will then not remove enough oil to prevent dye resist. A random mixture of first-scoured and last-scoured skeins combined in a dye batch will then result in an uneven lot.

Scouring conditions can affect this situation. For instance, build-up of oil concentration in the scouring bowl can be retarded by continuous overflow of the solution, and detergent depletion can be prevented by continuous addition. The limitation to these controls is economic—the greater the overflow, the faster must be the detergent additions to compensate it, and, in the long run, the oil must be scourable without resort to excessive detergent use, or economies of oil cost are overbalanced by high scouring costs.

The scouring of oils from yarn is then a matter of balance between oil build-up and detergent addition, and, as scouring progresses from a fresh bath at the start, one of three courses may occur:

1) if the detergent addition overbalances the build-up of oil in the scouring bowl, the yarn will run cleaner (with respect to residual extractables) as scouring progresses;

2) if the detergent addition just balances oil build-up, the curve of extractables will be level with respect to pounds scoured;

3) if oil build-up overbalances detergent addition, the yarn will be less clean of oil as scouring progresses, and at some point will go "out of control", or exceed the maximum permissible level of extractable content beyond which dyeing trouble will occur.

These conditions are illustrated by the performances of Lots A, B, and C respectively in Figure 1, which are actual production lots of yarn, sampled each 20 minutes during scouring, or after each 667 pounds of yarn scoured.

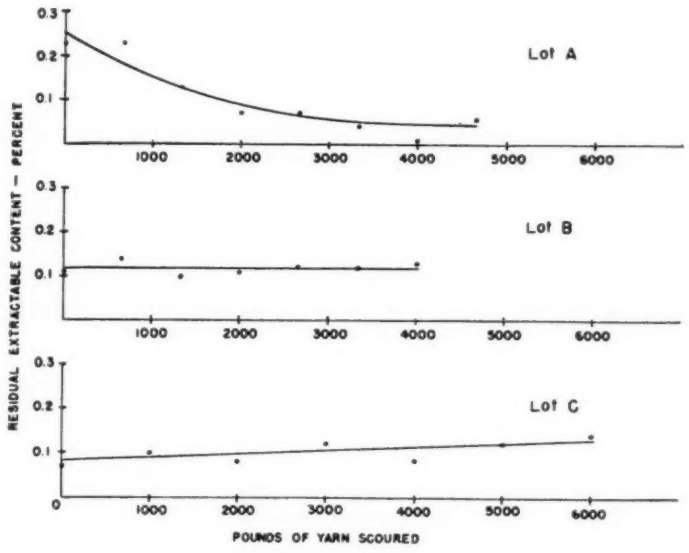


Figure 1
Representative control curves, continuous wool scouring

* Submitted to the Reporter by the Editor of Proceedings on Mar 15, 1954.

Figure 2
Immersing drycleaned yarn in oil solution

Figure 3
Decanting excess oil solution

Figure 4
Putting yarn into centrifugal extractor for bringing to uniform oil content

II TESTS FOR SPINNING OIL SCOURABILITY

Methods previously described for determining oil scourability in the laboratory may be abstracted briefly as follows:

A) *Arthur D Little Test (3)*

Small clean skeins are impregnated with the desired amount of oil dissolved in no more solvent than can be completely worked into the skeins by hand. Some of the skeins are then tested for extractables to get the initial oil level, and the others are scoured by hand in a standard soap solution. The latter are then tested for residual extractables, and the scourability of the oil expressed as the ratio of oil removed to that applied or the oil remaining to that applied. Representative scourabilities of different classes of oils determined by this technique are as follows:

Figure 5
Application of oil to clean yarn in laboratory padder

Type of Oil	*Scourability*, Avg*	*Range, 4 Determinations*
white mineral oil	20%	17-30
lard oil	97%	92-99
self-emulsifying mineral oil	55%	45-67
"self-scouring" oil	98%	93-99
olive oil	95%	92-96

* Expressed as oil removal by the following formula: $\frac{\text{(original extractable — residual extractable)} \times 100}{\text{original extractable}}$

The limitations of this test are

1) uniform application of oil to yarn by hand working is very difficult and not subject to standardization;

2) the scouring is equivalent to a batch process and tells how a spinning oil would be removed at the start of a continuous scouring operation, but gives no information as to what will happen as scouring proceeds———for instance, how fast the oil will deplete the detergent;

3) small differences in scourability of oils are difficult to detect because of variabilities inherent to hand application and hand scouring.

B) *Detergency Comparator Test (2)*

Tubing is knitted from stock which has been picked with the oil under test, and scourability is determined by washing the tubing in the Comparator, which may be used as a miniature fulling machine or dolly washer. The limitations of this test are

1) while uniform oil distribution can be obtained on the test sample, the procedure for doing so is involved, requiring that a plant-size amount of stock be picked with the test oil, yarn be spun, and knitted into tubing;

2) as above, the scouring is equivalent to a batch process, with the same limits on the data it yields.

For the reasons shown above, the Committee concentrated on two tasks: getting a simple but controllable method of oil application entirely within the laboratory; and using a continuous rather than a batch scouring procedure.

III APPLICATION OF OILS TO YARN FOR SCOURABILITY TESTS

Two methods were found suitable for the application of oils to yarn for scourability tests: centrifugal extraction of clean yarn dipped into a toluene solution of the oil to be tested; and single-end padding of the oil from toluene solution onto clean yarn. These methods will now be described.

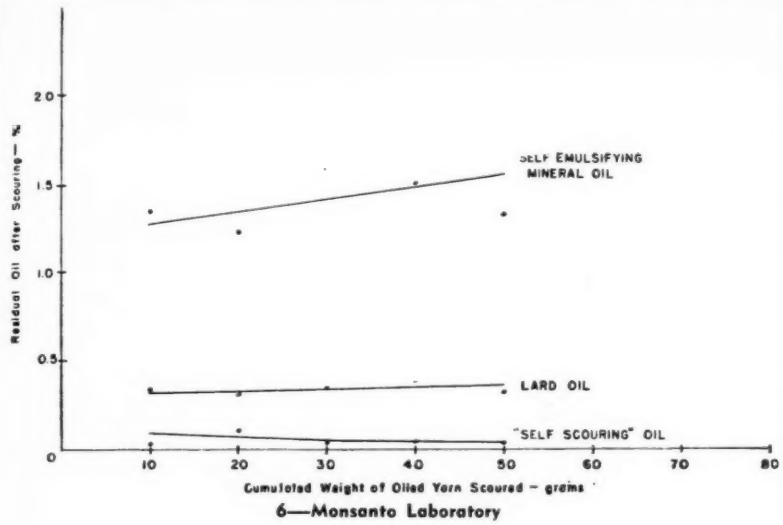
A) *Immersion and Extraction*

The procedure for this method of application, which was worked out at the American Aniline, Forstmann Woolen, Hercules Powder, and Alexander Smith laboratories, is as follows:

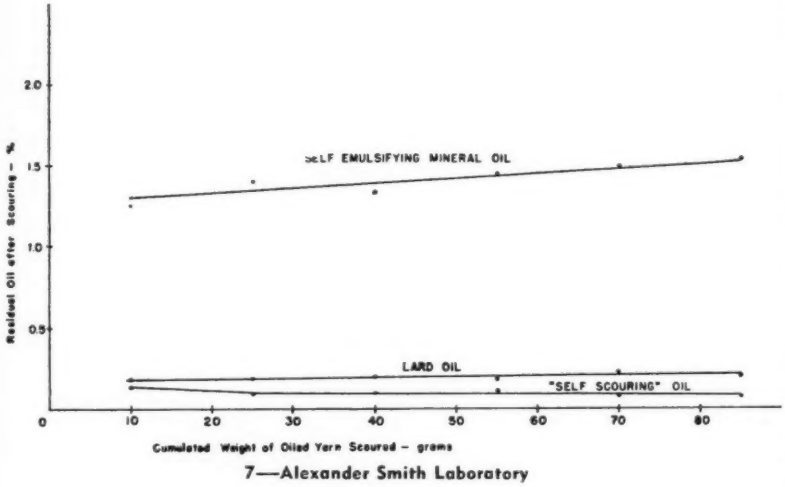
1) obtain a supply of dry-cleaned wool yarn either by having grease yarn commercially drycleaned or by dipping the yarn into clean carbon tetrachloride four times and extracting the yarn each time. The carbon tetrachloride extractables by rapid extraction test *(2)* shall be not more than 0.2% after drycleaning;

2) make a toluene solution of the oil to be tested: a 35% solution by weight will give 3 to 4% on the yarn, a suitable level for scourability testing; however, the level may be adjusted as desired;

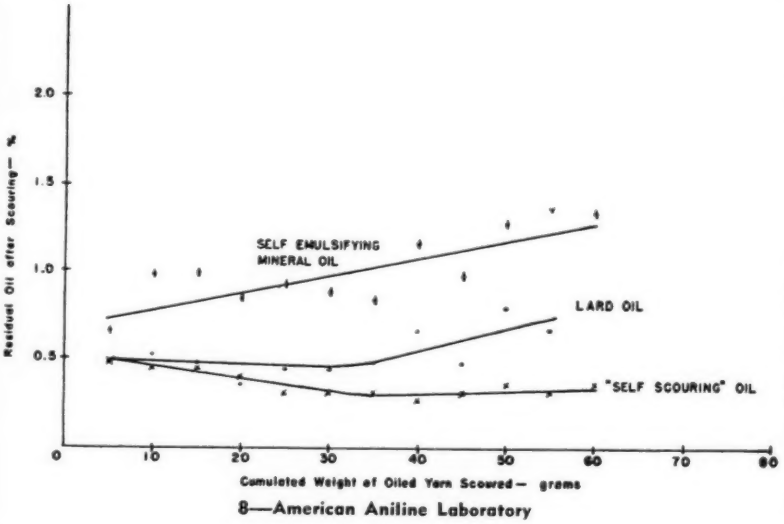
3) dip a skein of dry-cleaned yarn into the oil solution, making sure of total immersion (see Figure 2);



6—Monsanto Laboratory



7—Alexander Smith Laboratory



8—American Aniline Laboratory

Figures 6-8
Comparative scourability of oils from wool yarn—continuous scour process

4) decant the excess solution, pressing the yarn with a plunger to express as much solution as possible (see Figure 3);
5) place the yarn in a laboratory centrifugal extractor (see Figure 4) and extract four minutes;
6) remove the yarn and permit it to air dry.

A few noteworthy points came out in the development of this procedure which should be recorded

1) Application of oil from water emulsion did not give satisfactory uniform distribution. The range between maximum and minimum oil contents sampled at various points of treated skeins was twice that obtained with toluene application. With toluene the range was 10% of the average level, while with water it was 20%.

2) Toluene was selected from a wider group of solvents tried, and seems to have about the right rate of evaporation to give good oil distribution. Benzene, on the one hand, evaporates very fast and the oil tended to migrate with it to the outside of the skein. When benzene was used, the skeins were almost dried in the centrifuge. Xylene, on the other hand, dries too slowly, in some cases taking almost 24 hours, which slows the procedure and also promotes migration. It was found useful to follow the migrating tendency of the solvent visually by adding a small amount of an oil-soluble dye to the impregnating solution.

c) Extraction time in excess of four minutes did not improve evenness of oil distribution. In most cases extraction for three minutes gave results as good as for four minutes, but the few cases in which it did not do so indicated that four minutes should be used.

B) *Single-end Continuous Padding*

The procedure for this method of oil application, which was worked out at the Monsanto and Rohm & Haas laboratories, is as follows:

1) prepare a supply of dry-cleaned wool yarn as above;
2) make a 10% solution in toluene of the oil to be tested;
3) apply the solution to the yarn in a laboratory padder (see Figure 5). A Butterworth padder was found to be suitable. With squeezerolls set at 200 pounds (20 lb per inch) a wet pick-up of 50% was obtained;
4) air-dry the yarn.

As in the case of application with a centrifugal extractor, the range of oil application was 10% of the average level, the latter again being 3 to 4%.

IV CONTINUOUS SCOURING OF TREATED YARNS

The scouring procedure used is AATCC Tentative Test Method 64-52 *(1)*. In this case, yarns treated with spinning oils were broken down to 5-gram skeins, scoured and tested for residual oil in accordance with the specified scouring materials and procedure. Results obtained with three types of spinning oils in three laboratories are shown in Figures 6, 7, and 8. The following points may be noted:

A) All three laboratories rank the oils in the same way.

B) Effects of detergent exhaustion and oil

(Concluded on Page P269)

1953 Annual Convention——Hosiery Group——

WOOLEN AND WORSTED SPUN YARN IN HOSIERY*

ELWOOD W MUNZ

Assistant Director of Sales
Rose Mills, Inc
Philadelphia, Pa

INTRODUCTION

TO appreciate the value of worsted woolen spun yarn in hosiery it is necessary to make a brief analysis of the requirements of satisfactory hosiery. Today in a world of advertising and style trends the basic characteristics necessary in clothing are sometimes temporarily neglected. This is only a temporary situation because the consumer soon finds the deficiencies in actual usage and refuses to make further purchases. Even though the situation automatically corrects itself by consumer action, costly experimentation and needless inventory losses can be avoided, if the basic requirements are constantly kept in mind that an item of clothing must satisfy. With this thought our discussion will first set forth the basic needs that hosiery must satisfy. Woolen and worsted yarns are then discussed from the standpoint of how their usage helps hosiery to fulfill the necessary requirements of a foot covering. A brief summary of the mechanical steps in these methods of spinning and fibers used will serve to explain better the performance of these yarns in actual usage.

E W Munz

A summary of the woolen and worsted systems of spinning. A correlation between these methods of spinning and their use in hosiery. Resumé of the fibers used in hosiery that can be spun by these systems. Characteristics of yarns spun by these systems and their effect on the properties of finished hosiery.

DISCUSSIONS

In modern civilization it is a necessity that protection be given to the feet. The characteristics that a satisfactory pair of socks should have are the following:

1) Warmth
2) Absorption
3) Durability
4) Washability
5) Cushioning ability
6) Proper fit without binding or rubbing

The anatomical location and structure of the feet are the basic reasons why most of the above are necessary.

The location of the feet furtherest from the heart often results in poor vascular circulation. This, plus man's inhabitation of cold climates, makes warmth a real problem. The hygroscopic quality of the foot covering helps maintain warmth and helps avoid the moist environment that fosters rapid development of fungi and bacteria. Durability is primarily an economic matter since constant replacement would soon discourage the use of a foot covering. Washing helps prevent infection by destroying harmful organisms and removing perspiration and dirt favorable for their development. Cushioning helps protect the human skeletal structure against harmful shocks. A poor fitting sock would bunch up and wrinkle, causing chafing, blisters and breaks in the skin that could easily develop into infections.

KNITTING——Knitted hosiery from spun yarns does meet the above requirements if the proper fibers are used. The use by man of spun yarns, since before recorded history, attests to their value in clothing. Knitting as a method of fashioning yarn into a usable cloth was an early invention of man. Some idea of the date of its introduction into England may be seen by the fact that it was first mentioned in English literature as "cynttan" in 1492. It is known that within a few generations hand knitting had spread throughout Europe. Before the 16th century the word "hosa" in Anglo-Saxon meant a woven cloth garment that covered the legs and the lower part of the body. As knitting became popular throughout the British Isles the leg coverings began to be knitted separately by hand.

Since the invention of the knitting machine by Rev W Lee about the time of Sir Walter Raleigh, the use of knitted hosiery has gained universal acceptance because it satisfies a real need. One textile authority sums up the qualities of a knitted fabric as follows:

"The interlocking loops of the knitted construction permits the fabric to stretch in any direction. This advantage of stretchability that knitted cloth possesses is an important consideration where fit and comfort are concerned. Knitted fabrics also give warmth because of the insulative air pockets contained in this type of construction. Knitted fabrics are very absorbent and light in weight and do not wrinkle easily". M D Potter, *Fiber to Fabric*.

Compared with hosiery knit from continuous-filament yarn, hosiery manufactured from spun yarns is superior in warmth, absorption and cushioning ability. The spun fibers provide more insulative air pockets, and the resilient crimp in many fibers adds greatly to the comfort factors.

WOOLEN AND WORSTED SPUN YARNS——The use of woolen and worsted spun yarns has always been important in quality hosiery that possess real utility. The armed services verify this by their adoption of the cushion-sole sock, which utilizes worsted spun yarn in its cushion. These socks must be able to perform their function under the most extreme conditions. Woolen and worsted yarns in hosiery have specific applications which utilize the physical characteristics of each of these types of spinning. Woolen spun yarns are used for coarse utility and sports hose and for speciality hair-fiber effects.

* Presented in the South Ballroom of the Conrad Hilton Hotel in Chicago on Friday morning, Sept 18, 1953, before the Hosiery Group, which met under the chairmanship of A G Alexander. Submitted to the Reporter by the Editor of Proceedings on March 15, 1954.

Worsted spun yarns are used for lighter-weight luxury hosiery where the qualities of this type of spinning is desired without excessive bulk. A brief study of the methods of the woolen and worsted spinning systems will explain the presence of characteristics that channels the usage in this manner.

SPINNING ON ALL SYSTEMS—— The spinning of any fibers on all systems consists of the following steps:

1) Opening and cleaning the fiber so it can be worked.

2) Carding to disentangle and straighten the fibers, mix the stock and remove impurities.

3) Combing to further straighten fibers and remove short fibers and vegetable matter in animal fibers. This is not done on the woolen system.

4) Drawing out to further reduce size. (Omitted on woolen system).

5) Spinning, reduction to desired size and insertion of twist to give fiber cohesion for strength.

WOOLEN SPINNING——Woolen spinning consists of the following steps:

1) Blending and Oiling
2) Carding
3) Spinning

The blending is very important because of the variety of fibers spun on the woolen system in blends. Skillful mixing and blending can easily determine whether a woolen mill can operate profitably. This is usually done by spreading the materials on the cement floor of a separate room in layers of various grades. The various colors and stocks are carefully weighed. After the lot is laid out it is removed by advancing endwise, like biting a sandwich, taking off an equal amount in thickness from each layer each time so that the delivery of the blend is uniform. Some mechanical mixing device is then used. Lubricants are applied either before or during mixing. This oiling is necessary to minimize fiber damage, fly and static electricity in carding and to increase the cohesion of the fibers in subsequent operations. Up to 10% of oil, depending upon the fibers being spun, is applied during blending.

Carding is the passing of the stock through a series of cylinders covered with protuding wires which open, dissentangle the fibers and straighten them as much as desired. A mixing and cleaning action also occurs.

The primary carding action is the result of one large cylinder on which are placed many small cylinders, the small cylinders revolving in the opposite direction to the large cylinder. The wires of the large and small cylinders work in opposition to each other.

The usual woolen card is actually three or four cards run in succession. Mixing and special cleaning devices are set in between the cards. The most important is the Peralta roller device consisting of two massive rollers, through which the card web is passed. The highly polished rolls are set under very high pressure and crush out most foreign matter in the blend. The last card in the series separates the card web into roving for the woolen spinning mule or frame. Although worsted carding lays the wool fibers somewhat parallel to each other, no such attempt is made in woolen carding. The fibers in a woolen yarn lie in every direction, whereas, in a worsted yarn they lie much more parallel to each other. This fact greatly determines the comparative characteristics of woolen and worsted spun yarns. The woolen carder is more concerned with sufficient blending than the parallelism of the stock.

It is worthy of mention that today on some fine yarns a greater attempt is being made to make the fibers more parallel in carding. This is accomplished by a slight drafting in the carding. This is an attempt to compensate for the lack of subsequent combings and gillings when an even fine yarn is the primary object.

The stock, now in roving form, is ready for spinning either on a mule or ring frame. The mule has an intermittent spinning action, while the ring frame has a continuous operation. The spinning operation reduces the roving to final count by drawing out and inserts the proper twist.

Woolen yarns are characterized by shorter fibers, less strength and not as even spinning as worsted yarns. Woolen spinning by its use of shorter fibers and their random direction in the yarn makes the yarn soft, fuzzy and thick. This results in greater warmth and cushioning ability.

The woolen system is very versatile in the variety of fibers that can be used. Its ability to do this makes it possible to use inexpensive wastes, by-products from worsted spinning and garnetts from thread and fabric waste. Many different types of fibers can be blended. Because of this a very inexpensive yarn can be produced. This same versatility lends itself to the spinning of the specialty hair fibers, such as angora and cashmere, which are the most expensive yarns. The random position of the fibers enhances the fulling and lofting of these specialty fibers during processing. Because of this, woolen spun cashmere and angora yarns are usually preferred over worsted spun in the heavier sizes. All of the new synthetics can be readily spun on the woolen system.

The major application of woolen spun yarns to hosiery is in heavy work socks and sport socks. The soft fuzzy characteristics of the yarn makes it most desirable regardless of price. The ability to utilize inexpensive stocks and blends adds to its usage in this type of sock. Many times the woolen yarn is spun around a cotton core yarn to supply much additional strength.

Woolen spun angora and cashmere blends are also used. Women's anklets utilize a cuff from woolen spun angora blends made from either angora-nylon or angora-wool. Usually 50 to 85% Angora is in the blend. A luxury sock from a blend of 50 to 60% cashmere with nylon is gaining in popularity. The cashmere has a very soft hand and the nylon supplies the backbone of the yarn. Woolen yarns are usually only used in coarse sizes because above 5 Run (9 2/3 cotton count—14½ worsted count) the cost of spinning become progresively uncompetitive with the worsted system of spinning. The lack of intermediate drawing and combing operations between carding and spinning results in noticeable unevenness in fine sizes limiting the practical spin on most fibers to 6 Run or 7 Run. To spin this, fine stocks must be carefully selected and machinery properly maintained and adjusted.

WORSTED SPINNING——There are three main steps in worsted spinning:

1) Top Making
2) Drawing
3) Spinning

The two main systems of worsted spinning are the Bradford and French systems. Recently the American system of spinning has come into prominence for certain types of yarns. The Bradford system was developed in England and was originally for handling staple of a medium to long length; the French system was developed in Alsace-Lorraine originally to handle staples of a medium to short length. Today both systems can use a much wider range of fiber length. The same basic operations are performed on each system; the difference is in the different mechanical processing methods used. Today in the United States, Bradford spinning is used for very low grades of wool up to 70s. French spinning utilizes, in most cases, 58s to 80s. The Bradford system utilizes longer staples, while the French system uses shorter wools.

The Bradford system is used to spin yarn sizes up to 1/50s. The French system is usually set up for spinning from approximately 1/15s to 1/70s from fine wools. By inclusion of a small amount of nylon sizes up to 1/80s have been spun.

Top making consists of preparing raw stock for the drawing operations. The stock is first scoured, then it is carded. The object of worsted carding is to open the stock from clumps to individual fibers with a slight degree of parallelization re-

sulting. The Bradford and French cards are very similar, except the French card is set up for shorter wools. All the worsted carding is done on one card as compared with the woolen sets of three or four cards. Backwashing is normally employed during top preparation for the purpose of further cleansing and preparing the stock. The exact location of this operation depends on the particular mill. After carding, the stock is subjected to a series of gillings and a combing operation. In the gillings a paralleling action, a straightening operation, and a doubling take place. The principle of doubling many ends of sliver and then drafting during the gilling serves to mix the stock and mechanically even out the card sliver. The greater the number of doublings, the better, the mixing and the more uniform, the sliver. In the initial gilling on the Bradford system about 2% of oil is added to the residual oil content of ¼ to 1% already on the stock. The addition of this oil is one of the major differences between the Bradford and French systems. The addition of oil is to facilitate further processing in the subsequent gilling and combing operations. The oil acts as a lubricant, facilitating fiber slippage during drafting. In the combing the following is accomplished: a) cleaning out of vegetable matter, tangled fibers, nibs and short fibers, commonly known as noils, b) making the remaining fibers lie more parallel, and c) a thorough blending of the stock. Worsted top from which worsted yarn is spun is made from the long fibers. The noils are used in the manufacture of woolen yarns. It is the combing operation that gives worsted yarn its straight, smooth, uniform diameter and appearance in contrast to the fuzzy irregular diameter of the woolen spun yarn. Because longer wools can be made use of in worsted spinning, fine sizes with high twist can be spun. The high twist imparts the strength so necessary in fine sizes. The combing enables the top to be put through subsequent drawing operations to produce very fine sizes of yarn. The woolen system as outlined previously is restricted to the coarser sizes. Entirely different mechanical principles are involved in the French and Bradford combs. The objective and end result are similar. Top making is often a separate business. Many spinners, especially on the Bradford system, do not make their own top but purchase it from "top makers".

In drawing four things are accomplished:

1) Reduction of sliver to a size small enough to be spun.

2) Doubling to equalize irregularities in the sliver.

3) Mixing of the stock during doubling.

4) Parallelization of the fibers.

Additional gillings are made on both French and Bradford systems. In the drawing, a major difference between the French and Bradford systems is the insertion of a small amount of twist in the sliver on the Bradford drawing frames. This is to control the fibers during drafting in the following operations. In the French system no twist is inserted, but between the rollers is a cylinder covered with needles. This slowly revolves with the needles helping to control the fibers as the sliver is reduced in size. This reduction of the diameter of a sliver is known as "draft". Drafting is accomplished in all cases by the simple process of having the sliver pass through two sets of rollers to prevent fiber breakage. The distance between them must be greater than the average fiber length. The front, or delivery rollers, revolve faster than the rear, or feed rollers. Since a greater yardage is delivered than is fed into the rear rollers, a reduction in diameter of sliver must take place. On the French system, after the stock in the form of sliver without twist has passed the front rollers, it goes to rubbing aprons or leathers, which serve to rub and condense the sliver into a round firm slubbing. By comparing the drawing of the French and Bradford systems, major differences between the two may be observed. The Bradford drafts with oil, the French does not. On the French system the fibers are controlled during drafting by the cylinder covered with needles called the "porcupine rollers". The Bradford system has no mechanical drafting control. The Bradford system controls the fibers during drafting by a slight twist. The French system has fiber control during drafting without twist. In both systems during gilling, a series of pins called "fallers" are passed through the stock while it is passing between two sets of rollers. Today on both systems the faller pins alternately come from top and bottom. These gill boxes are called intersecting gill boxes.

There are four methods of spinning worsted yarn: 1) flyer, 2) cap, 3) ring, and 4) mule spinning. The Bradford system spins by flyer, cap and ring, the French system by mule and ring. In recent years there has been a definite trend on both systems to ring spinning. The flyer and cap methods are used only on the Bradford system. The mule is used only on the French system. Both systems are using ring spinning. In the spinning there are two objectives:

1) Final drafting to proper diameter

2) Insertion of twist.

The drafting is done by rollers in all cases. The flyer and cap systems are rapidly being replaced and are used now only for specialized purposes. Although mule spinning is very costly, it does make an excellent soft yarn.

In ring spinning the roving is passed through a small metal loop called a traveler. The traveler moves around a metal ring. Inside the ring a spindle revolves, pulling the traveler after it. The twist actually is inserted between the front draw rolls and the spindle. The traveler serves only as a winding guide and to provide tension.

The ring frame has a continuous spinning operation, the mule an intermittent operation. Through constant improvements in ring spinning the difference between the yarn spun by other methods is not as great as previous.

The American system of spinning utilizes fewer operations as the result of higher drafts per operation. Of course, ring spinning is used. Because of fewer doublings highly uniform top must be used. There is difficulty blending colors because of lack of as many doublings, and the stock is not mixed so well. Most American spinners today are spinning wool in 60s to 70s quality. The count range is from 1/10s to 1/40s. While some can spin finer, this is the exception.

CHARACTERISTICS OF WORSTED SPUN YARNS——Although the characteristics to be given are typical, it is possible, by careful selection of stock and modification of the spinning operation, to modify these characteristics. Bradford yarn is usually harder and more hairy. French-spun yarn can utilize shorter wools possessing more elasticity. Very uniform yarns of soft and lofty texture which require less twist can be made by the French system. The small amount of twist necessary in the single of a two-ply Zephyr yarn, French-spun, makes an especially desirable soft yarn. While the Bradford system does spin up to 70s quality in wool, it is especially adaptable for the longer wools.

The reason for the characteristics of the yarn products from the various methods of spinning become obvious when the following facts are remembered: The Bradford system is set up to handle long wools, the French system shorter wools. This would account for the typical hairiness in Bradford yarns. The French system can produce a softer yarn than the Bradford system. This is due to the ability of the French system to spin with lower twist and the lack of oil in spinning. This accounts for the softer hand possible when a French-spun yarn is used. The characteristics of woolen-spun yarns has been previously discussed.

To compare, worsted yarns are smoother, can be spun much finer, and are much stronger in the finer counts than a woolen-spun yarn. Woolen-spun yarn is bulkier, and, as a result, warmer.

APPLICATIONS IN HOSIERY——Woolen-spun yarns are used in the heavier

type socks, usually below 85 needle. The bulkiness of woolen yarn and the fact that inexpensive raw materials can be used in its manufacture are great advantages for hosiery. Woolen-spun yarns also finds more usage in finer hosiery because it can be made from specialty hair fibers.

In most cases fabric spun from woolen yarn is brushed or piece-dyed. This working tends to raise a surface effect, which, in addition to giving an extra soft or fuzzy hand, also helps cover yarn unevenness. Bradford spun yarn has a large application as the cushion in cushion-sole socks. These are knit principally on 116- to 120-needle machines. The yarn is strong and the hairy effect of the 56s-grade wool makes the cushion more comfortable. Although Bradford yarn can be used, most quality English-type 6 x 3- or 9 x 3-rib socks use a French-spun yarn. This is because a soft yarn, usually two-ply, is desired. This type of sock is usually 132-needle or finer. Woolen-spun cashmere blends have also been used recently on this same-type sock. Special care must be taken to wash the hosiery after knitting to wash up the cashmere fiber and at the same time to cover yarn irregularity. Ingrain argyles of 120-needle knit and finer make use of French-spun yarns. American-spun yarns are also gaining in usage where a more economical yarn is desired. All the systems lend themselves to blends of the new synthetics and the natural fibers.

The regular French system cannot satisfactorily handle 100% nylon, and some of the other synthetics because of a problem in drawing. The Bradford and American systems do a large volume in 100% nylon and other synthetics.

In general the same characteristics for the various types of spinning prevail.

POPULARITY OF SPECIFIC BLENDS ——When analyzed from the standpoint of the desirable characteristics of hosiery, the reason for the popularity, over a period of time, of certain of the blends becomes apparent. One of the most popular blends consists of 50 to 80% of shrink-treated wool with 20% of nylon. Nylon greatly increases the strength of the yarn. The nylon and the shrink treatment of the wool give good laundering qualities.

The wool is hygroscopic and has a natural cushioning effect. Naturally warmth is also supplied by the wool. This blend is readily dyed and presents no particular processing problems. A blend that has had great success contains Vicara and nylon. Vicara, a hygroscopic regenerated fiber, supplies most of the characteristics of a fine wool. This blend is easily dyed and processed. It is much more economical than a fine wool. Usually 50-65% of Vicara is used. Cashmere and nylon are used in a luxury sock. The very soft hand of the cashmere is complemented by the strength of the nylon to make the use of delicate Cashmere in footwear practical.

PROPER FIBER SELECTION—— Successful blends and yarns of all one fiber should be selected with end usage in mind. Often the proper combination can utilize the good points of each fiber and thereby meet all the requirements of good hosiery. Some of the new synthetics, however, have been marketed before they do meet the practical requirements. The presence of static electricity, for example, can make a beautiful sock on the counter but a very impractical sock to wear. For sport and gym socks it is important to remember the need for absorption of perspiration and cushioning. Fibers should be present possessing these qualities. The usage should be analyzed and the yarn and fiber picked accordingly.

SUMMARY

Hosiery should be designed to attain the qualities necessary for foot health and comfort. The fabric is knitted because, through the years, this has proven most satisfactory. Woolen and worsted spun yarns have always been used in quality hosiery, in spite of their higher cost, because their intrinsic characteristics help hosiery to satisfy the real needs of footwear better. The individual characteristics of woolen and worsted spun yarns suit them for specific uses in hosiery. These characteristics are largely the result of the basic methods used in the individual spinning processes.

Certain blends have an enduring popularity because the fibers in the blend co-operate and help overcome the individual fiber weakness or shortcomings. The fibers should not be blended indiscriminately, but only after study of fiber characteristics and how they will help to satisfy the properties necessary in good hosiery.

QUESTIONS

Question: What are the specifications for an ideal fiber for hosiery yarn?

Answer: If you are trying to arrive at an ideal yarn in relation to denier and staple length, first of all in regard to staple length, I think it is significant that, for both cotton and American systems, people are trying to spin with a longer and longer staple length. As for diameter of fiber, the tendency has been toward finer and finer, but the limiting factors have been mainly strength and pilling.

Scourability——

(Concluded from Page P265)

build-up in the scouring solution are clearly shown.

C) Rankings are the same as those in the Arthur D Little test tabulated above, but the small difference between lard oil and the self-scouring oil is properly resolved by the successive data obtained and magnified as detergent exhaustion takes effect.

V CONCLUSIONS

The Committee believes that the method described above is satisfactory for the determination of wool-oil scourability and is superior to methods previously described for the following reasons:

A) The evaluation is carried out entirely in the laboratory, requiring no usage of plant-scale amounts of material or plant equipment.

B) The method reliably indicates the scourability of oils in a continuous operation as well as the manner in which it is removed with a fresh solution of detergent.

C) For the same reason, small differences in scourability can be resolved.

Note: As in grease-wool scouring, the conditions of Test Method 64-52 may be varied to suit the local conditions, since it is recognized that the detergent, temperature, immersion time, alkalinity, etc, affect the removal of any given oil. Conversely, the procedures described here can be used to develop the best conditions for the removal of any selected oil.

ACKNOWLEDGEMENT

The Committee expresses thanks to the many laboratory personnel who have contributed their time, effort, and thought toward working out the methods herein described, and to Bertil Ryberg of Procter & Gamble for his helpful guidance. We also thank former members of this Committee who, for reasons of other business pressure, were not able to remain members. They are Leo Beck, Beattie Carpet Company; Henry Trost, Hercules Powder Company; and Herman Schoelzel.

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ROLAND EVERETT DERBY

1953 Olney Medalist

1953 Annual Convention——

TENTH OLNEY MEDAL AWARD TO ROLAND EVERETT DERBY*

THE Olney Medal Award Luncheon of the Thirty-Second National Convention of the American Association of Textile Chemists and Colorists convened at noon in the North Ballroom of the Conrad Hilton Hotel in Chicago, Illinois on Friday, Sept 18, 1953. Roland E Derby, the tenth Medalist (Louis Olney himself was the first), was formally presented with the Medal by AATCC President J Robert Bonnar.

Joseph H Jones of the Phoenix Dye Works, who presided, first introduced three former Medalists and four members of the Olney Award Committee and then, in turn, the principals concerned with the presentation of the Award. The texts of the eulogies, of the formal presentation, and of the reply of the Medalist follow in order.

* Held in the Conrad Hilton Hotel in Chicago, Ill on Sept 18, 1953. Submitted to the Reporter by the Editor of Proceedings on March 15, 1954.

The Olney Medal

ROLAND EVERETT DERBY... THE MEDALIST—THE MAN

ALBERT E SAMPSON

National Aniline Division, Allied Chemical and Dye Corp

THOSE of us who are affiliated with the woolen industry have learned the "hum" of a Piper Cub over our plants means there will soon be a knock on our office door and Roland Derby will step in.

A visit from this energetic owner of the Derby Company and the Textile Aniline and Chemical Company of Lawrence, Massachusetts, is as refreshing as a breath of the "great blue yonder" from which he has descended. It is also a great comfort as well, for he solves one's difficult problems at once, the impossible, tomorrow, and the utterly impossible, the day thereafter.

Should you be one of those rare individals who has no problems, you may converse with profit on his hobbies, hunting, fishing, The Napachi Club, photography, golf and all manner of agricultural pursuits from apple raising to bee culture. Though air-minded, this colorful personality has both feet firmly on the ground. He will discuss these matters with the same facility as he will expound Hooke's law of intermolecular stress, or, diagnose your wet- or dry-finishing errors and omissions.

Life to Roland Derby is an enthusiastic adventure and a joyous challenge. Since his birth in Lowell, Massachusetts, on November 15, 1900, few days have passed that failed to be an experience from which an idea was either gained or discarded. The meat of the idea being neatly extracted and filed away for future reference in his nimble and retentive mind. Thus, he gained a know-how on textile matters that is rare among us and mainly because he has used his eyes and his ears and posed his questions to bring thoughtful answers and intelligent discussion.

As a youngster in Woodstock, New Hampshire, this mixture of 75 percent Tom Sawyer, 15 percent Huckleberry Finn and 10 percent pure unadulterated "hellion" would bedevil his elders with all manner of questions to satisfy his thirst for information. With him the usual youngsters, "why," "what," and "how" were atomic-powered into such posers as, "Why does a red cow eat green grass, drink clear water and give white milk and yellow butter?" Yet, the boyhood days spent there in rural surroundings laid a foundation of observation, decision, self-reliance and a healthy respect for hard work and for Nature's laws of life and its living.

In later years, the walls of Southwick Hall of the Lowell Textile School, from which he was graduated in 1922, rang with the questions and arguments he used to probe the validity of his own ideas and those of others on chemistry and dyeing.

After graduation, under the tutelage of such outstanding stalwarts of the woolen industry as Fred Hanson, Edward Morrison, William Edwards and Nathaniel Stevens, his fruitful mind began to crystallize a pattern of development. He became progressively a master dyer, a finisher, a chief chemist and eventually a vice-president of the far-flung J P Stevens Company of New York City. With his education, his training and his profession, a truly "dyed-in-the-wool" technician came into being.

By all conventional standards in 1940 Roland Derby had arrived. He was happily married to Ardelle Plaisted, and their union had been blessed with a splendid son and daughter typifying the highest type of Young America. His modern farm in Tyngsborough, Massachusetts, had every contrivance for relaxation and comfortable living. His leadership in his community, his Alma Mater, your Association and the M T Stevens Company was solidly established. Any ordinary man would have been well content.

But, Roland Derby by reason of an American ancestry of over three centuries and an outstanding record of accomplishment is not an ordinary man. The years had woven his experiences into a definite decision—to set up somewhere and some-

how a one-package technical service and supply for all branches of the woolen industry, a place, conveniently situated, to which its members could bring the ills of the profession for diagnosis and cure.

The letter "D" stands for Derby and Decision and Doing. So, on a bright May morning in 1940 his good wife Ardelle gave Roland a solid breakfast of her famous pancakes, a good-luck kiss and with a tear in her eye and a prayer in her heart, she sent him on his way to beard the lion — Mr Nathaniel Stevens, Owner and President of the mighty M T Stevens Company.

You can well understand Mr Stevens' utter and complete surprise when his Chief Chemist came to his office and said, "Mr Stevens, you are paying me more salary than I am worth to you. I am not here to ask for another position, nor is it my desire to discontinue my services to you. I am here to discuss a plan that will benefit us both at no expense to you. In fact, I am confident my plan will save you a substantial sum."

Such an honest and sincere approach from one Mr Stevens knew so well got results. The Derby Company and the Textile Aniline and Chemical Company were formed at once, and during their twelve years of existence they have developed at 49 Blanchard Street in Lawrence the best-equipped sales-service laboratory in New England for the woolen industry.

Thus did the Boy become a Man. On the way, he had prepared himself with such diligence in those attributes of Manhood, that when his call came to do a man's work he was ready. He stood forth arrayed for the fray in the bright and shining armour of Experience, and he has fought his fight and none will deny him his spurs of Victory. We who follow should not imitate; but, emulate this Man.

Today, in conferring upon Roland Everett Derby the highest award this Association can bestow upon a member, The Olney Medal Award, your Committee has weighed well his experience. They have given great cognizance that with his own hands on the Anvil of his Successes and in the Flames of his Failures he has tempered his Talents to a keenness few attain. For it is with these Talents he has carved a successful and exemplary career as a Leader of Men.

If there be among us the belief — "The Almighty loved the Common Man because He made so many of them, and to prove that love, He created from time to time an Uncommon Man to lead them" — then we as one should arise and with gratitude in our hearts salute —

Roland Everett Derby, the Medalist — the Uncommon Man. (Applause)

ROLAND EVERETT DERBY... THE MEDALIST—THE SCIENTIST

HAROLD W LEITCH

Director of Research, Pacific Mills, Worsted Division

ROLAND E DERBY's father and mother, believing "the man is but the boy grown up," took their parental duties seriously and made every effort and sacrifice to build into the boy the sterling qualities of manhood. They prepared him in the Mitchell Military School for college, and Roland, after conferring with President Charles H Eames of the Lowell Textile School (now the Lowell Technological Institute), decided to enter that institution and major in electrical engineering. This must have pleased his father, who was in the electrical business in Lowell. In fact, Lucius, the father, in 1885 installed the first electric arc light and then the first incandescent light in that city. The arc light has long since lost its great power to lighten man's path, but it brought to that community a new way of life and revolutionized its industry.

Fortunately for the textile industry, Roland had courses in chemistry and dyeing during the first semester under Dr Louis A Olney, whose teaching and magnetism attracted the young man so much that electrical engineering was abandoned in favor of chemistry and dyeing.

Our honored member, after graduating with a degree of Bachelor of Textile Chemistry in 1922, moved along steadily in the application of his knowledge, mostly in dyeing and finishing. In 1928 "opportunity knocked", and he entered into a wider field of science and its application as Head Chemist for M T Stevens and Sons Co. On the occasion of his promotion, he told me that he wondered if his experience was adequate enough to take on the responsibilities of the position.

In the textile field at least, and in industry generally, the success of scientific work comes not only from accomplishment in the laboratory but from practical application in manufacturing. It is not enough to know that a process will work on a laboratory scale; it must be worked in the plant. The Medalist, in the course of his career, has proved his complete competence in scientific work and in the inception, development and application of many novel processes.

It often happens that industry fails to make use of new processes, even those with proved practical applicability, and Roland Derby experienced disappointment on more than one occasion; for example, his invention and development on a full-scale production basis of a system for applying vat dyes to worsted top. He doesn't know yet why it is not used, but that can be attributed to the unreadiness of management to promote higher quality at greater cost. Briefly, here is the story. Following benchwork in the laboratory, he built a backwasher-like dyeing machine in the basement of his home and proceeded to run trials until the results made him confident that the process could be put into the plant. Then, in the plant, a backwasher was modified by adding such auxiliary equipment as storage tanks, pumps and feeding devices. Scoured worsted top was run through continuously at usual backwasher speed, giving a total passage time of three minutes. Light to dark colors were produced with Helindone-type dyestuffs. When the running of a particular color was finished, the liquor was pumped back into storage, where it could be kept for several days or until needed again. The process ran beautifully and produced dyeings "fast to everything", and the wool fiber was damaged less than in chrome dyeing. But, a cost of about four times that of chrome-dyed colors "knocked it out".

Although of great importance, the inventions of the Medalist were developed while he continued to give full measure of accomplishment in laboratory and plant, in service work, and in the control and improvement of processes.

The objects of the Association are to promote knowledge of the application of dyes and chemicals, to encourage research and to establish interchange of professional knowledge; and the Olney Medal is awarded to encourage and to make public the recognition of such achievement. For this reason, and with the younger generation in mind, a brief description of the development of the Derby Continuous Drycleaner is in order. The problem at first was the removal of paint and tar specks from woolen fabrics. After much laboratory work, carbon tetrachloride was used in a Yorkshire crab (at considerable risk to the personnel), and it gave satisfactory results, showing that solvent cleaning had good possibilities. Then, after much persistence, approval of the project was arranged and work started. The first machine was of black iron for lowest cost. It was soon found that running cloth through tanks

of solvent was very inefficient, and that led to the most important part of the invention: the use of a vacuum slot. From the time of the use of the vacuum, success of the process was assured. Then came many months of running of production with various kinds of chemicals, materials and pieces of auxiliary equipment and with many a dose of poisonous fumes for the inventor and his associates. Finally, the system was adopted by the industry, and now it is an important part of the finishing equipment of many plants for both woolens and worsteds. It introduced one of the few radically new wet-finishing operations of the century. Then, later on, came the invention and practical application of the method for the recovery of valuable oil from the solvent used in the process.

Roland Derby developed processes for continuously neutralizing dry acid cloth, using ammonia gas. He was the first to show how carbonizing resist is produced and how to avoid it. This work on carbonizing was contributed to the Committee on the Carbonization of Wool, of which he was chairman. He was the first to reveal the method for the practical application of soluble vat dyes to wool piece goods for indigo shades for the navy, as well as the first successful chrome-dyed substitutions. When the Committee on Chemical Technology of Wool tried to hire Mr Derby's company to do its laboratory research work on its "salt project", he accepted the job at no cost to the Association and personally directed all the work and wrote a report. This laboratory work led to the firm establishment of the use of common salt as an alternative for sodium sulfate in the practical dyeing of wool piece goods. Time does not allow the recital of more of his achievements and work on research committees; the list is long.

Roland Derby has demonstrated to himself, without a shadow of doubt, that he made no mistake when, in the year 1928, he decided to accept the position of Head Chemist for M T Stevens and Sons Co.

If the fates had spared Dr Louis A Olney, this would have been his greatest hour. The award of the Olney Medal, given in his name, to the man he taught and guided is a most gratifying and significant testimony to Louis Olney's abilities as a molder of men. Surely, all here would add a hearty "amen" to what would have been Dr Olney's probable expression of his pleasure to our Medalist, "Well done good and faithful servant".

PRESENTATION OF MEDAL

J ROBERT BONNAR
AATCC President

MR DERBY, Mrs Derby, Members and Friends: You have heard one of the finest presentations of one of our members as a Man and as a Scientist.

I would like to take this opportunity for just a moment to tell you about the Medal itself. We could read this probably, but if you are like me, you don't read all the things you should, and it is important that you know about the distinction we are bestowing upon someone today.

This Medal, which today will be the tenth, is given each year not just to one of some seven thousand of our members, but, according to rules and regulations, it can be given to anyone who the Committee decides has met certain qualifications; and so I want to call your attention to the fact, that the recipient is not merely one in seven thousand, but one in a far greater number. However, it makes the honor even greater to have the man who receives the Medal one of our own members.

It does not mean this man has taken out more patents than anyone else; it does not mean he has made more money as a Chief Chemist, and that he is the highest salaried of any Chief Chemist in the wet-processing industry; but it comes from what he is doing and what he has done. It does not mean he has attended the most AATCC meetings in the last ten years; it does not mean he has hired more young men from any textile school; it means he has had a part in all these things.

According to the regulations, as set up ten years ago, he has contributed more in the eyes of the Committee to the textile industry from the standpoint of chemical agents and dyes, or processes, or in helping the people in the industry.

I think there is one other thing too that ought to be called to the attention of everyone who should realize, but there again probably does not, and that is that if there was a possibility of Mrs Derby sharing in the Medal itself, in addition to knowing her husband got it, that should be thought of. I can well imagine Mrs Derby, that many times the chops not only got too well done, but they were put back in the refrigerator for tomorrow noon's meal. I imagine he has been away from home many times. I imagine he has come home at night tired and probably a little crabby as many man do, not too often, but occasionally, and we admit it, and I think all those things contribute. I think his family has had a lot to do with it. He has been contended in family life, because you can't do very well if you have family troubles. I think a few of those things should be taken into account.

Now, Roland Derby, it is my duty on behalf of the Howes Publishing Company to present you this Medal. It is a privilege to do it, having known you in your work for many, many years.

President J Robert Bonnar (left) presents the 1953 Olney Medal to Roland E Derby

ADDRESS OF THE MEDALIST

ROLAND E DERBY

MR TOASTMASTER, Mr Chairman, President Bonnar, Members and Guests of the AATCC: I have spoken before this Association many times without very much embarrassment, but today I am truly embarrassed. I know most of the people here. I was surprised to look around the room and see so many faces that I am familiar with. To come to the Convention at my age and find so many fellows that I have worked with is a great pleasure; and then to come into such an honor as I am receiving and to see so many gentlemen I know whose faces are familiar to me, I assure you is a great help.

I gratefully accept the great honor which you have bestowed upon me. I appreciate with the utmost sincerity the decision of your Committee in selecting me to receive this Olney Medal, which represents so much in the prestige of our Association and in the field of science as a whole. For this Medal we are all indebted and I, in turn, want to add my thanks, to the thoughfulness of the Howes Publishing Company in so commemorating one as dear to us all as Dr Louis A Olney. It was most appropriate that Mr Howes was able to present this Medal the first time to Dr Olney himself.

To assume my place beside the great men whom you have previously thus honored leaves me awestricken and considerably in doubt as to my ability to qualify. It is the greatest honor I have ever received and, I must admit, the greatest thrill I have ever experienced.

I am also very proud to think that two such prominent men as Al Sampson and Harold Leitch have been willing to spend so much of their valuable time in preparing such eloquent introductions for me. They must be excused, as you would excuse an ardent fisherman, for their tendency to overembellish their recounting of the past. One thing that they have told you is really true, and that is the fact that I have always had great interest in the progress of this Association, and, while my contributions do not begin to compare with the time and effort spent by such men as William Cady or William Appel, nevertheless I have had a sincere interest in the affairs of this Association and belief in its principles of operation.

Where can one get so much for so little as is contained in the bound volumes of the *Dyestuff Reporter*, which we keep as an important and often-used reference in our company's library? Where can one attend meetings of more unified effort to benefit their industry than our sectional and national meetings? It represents the best possible team work and is well proven by its phenomenal growth to represent some seven thousand members. Our committee work is one of its most valuable and constructive assets, and those of us who have an opportunity to serve on one are indeed fortunate.

Ever since Dr Chapin, our respected secretary and one of my closest friends, called me on the 'phone to tell me of my good fortune to be chosen by your Committee, I have been wondering what I could possibly say to this vast group of eminent scientists beyond the sincere expression of my appreciation, that would be of interest and in any sense commensurate with this occasion. I have read carefully the acceptance speeches of those who have preceded me in this great honor, and wished that I could give the type of scientific paper which Dr Harris gave, or the immensely detailed report of 145 references given by Dr Royer in his talk on textile dyeing and finishing. In fact, they were all of the highest type of fascinating talk worthy of the men who gave them. I would like first of all to say something to this group which will interest you and, secondly, something that will be worth reading by those members who have been unable to attend. It would seem that during the thirty years I have devoted to this business, something must have happened to provide this point of interest.

In the group here represented we have men from many divisions of this great textile industry. Many of them have been associated with it longer than I have; others perhaps with somewhat less experience; and also those younger members just starting in this business.

To this younger group I would like to say right now that you have chosen for your life's work a tremendously fascinating field. It is chock-full of opportunities that are absolutely unending and increase almost daily in scope and interest. I cannot help but envy you younger men the long and interestesting road ahead. You are faced with a stupendous undertaking that will take all the courage and effort you can muster to win success, but if you have a sincere desire to be a moving part in this great wheel, you can do it and have the greatest of pleasure and satisfaction in your accomplishment. In this you will find the AATCC and your connections with it a great help to you. Every time you have an opportunity, and you should seek these opportunities, to serve on a committee, write an article, read a paper, or in any other way aid in the progress of this Association, you will get more than you can possibly realize out of it. Attend your local and national meetings and help keep them on the high plane which has been so well exemplified in the records of the AATCC.

Let me say right here that no better

ROLAND E DERBY

AATCC Activities

- Chairman, NNE Section, 1936
- Councilor, Representing NNE Section, 1936-1938
- National Vice-President, 1941-1943
- Served on Committees:
  - General Research
  - Colour Index
  - Chemical Technology of Wool
  - Carbonization of Wool (Chairman)
  - Wash-Fastness Tests for Dyed Wool
  - Analysis of Fiber Mixtures
  - Analysis of Wool Textile Materials for Soap, Oil, etc
  - Co-operating with Government on Uniform Fabrics
  - Detergency, Wool Group
  - Evaluation of Detergents for Wool
  - QM-Air Force Dye Survey

Partial List of Other Activities

- President of Lowell Technological Institute Research Foundation (Currently)
- Served nine years as member of Board of Trustees, Lowell Technological Institute
- Member of LTI Building Foundation
- Member of Committee on Oxidation of Wool Oils of National Association of Wool Manufacturers and Wool Top Commission

Publications

- "The Application of Drycleaning to Mill Processing", *Am Dyestuff Reptr* 28, 520 (1939)
- "Piece-Goods Dyeing with the Leuco Ester of Indigo", *Am Dyestuff Reptr* 32, 30 (1943); 32, 320 (1943)

US Patents

- 2,485,710, "Apparatus and Process for Continuously Neutralizing Dry Acid Cloth"
- 2,176,706, "Apparatus and Process for Drycleaning Wool Piece Goods"
- 2,607,786, 2,631,971, "Apparatus and Process for Recovering Oil from the Solvent Cleaning of Raw Wool or Wool Fabric"

investment is possible for your employer, as head of a textile mill or chemical concern, than to grant the expense of travel and attendance of their scientific men to these meetings. It will reap tremendous dividends.

This is not the main subject I have chosen to talk about, but I would like to say a few words to this younger group.

One of the greatest pleasures I have had in my life's work has been the opportunity to interest the younger group of chemists coming into this field, and perhaps in some way to make the problems they face somewhat clearer to them.

I remember well when, after ten years of being a boss dyer in woolen mills, the opportunity came to me to become head chemist for M T Stevens, through the recommendation of Harold Leitch, who has just spoken in my behalf. I felt greatly the need of experience in laboratory work. I had forgotten much that my years of schooling had taught me. I sought the council of men like Harold Leitch and Hugh Christison, and the help they so willingly gave me helped me greatly and impressed me permanently with the helpful attitude of these men. They held nothing back and gave freely of their time whenever I asked. I have tried to follow their pattern in my contacts with the younger men and can only hope that they may appreciate my help as much as I did the help of those men.

The ancient law of physics, which tells us that for each pound of work done an equal amount of energy must be expended, or in other words says you never get something for nothing, is unfortunately true. You must work hard, think hard, and put your shoulder firmly behind the wagon if you want it to move ahead.

My father, whose help and advice lifted me over many hurdles, had a saying which was not likely of his own origin, but one which I have always remembered, "If you never do any more than you get paid for, you will never get paid for any more than you do".

THE BRIDGE OF PROGRESS

Now, I have chosen a subject to talk to you about which I hope will interest this group as a whole because, at least in my mind, it is of tremendous importance. I have taken the liberty of calling it "The Bridge of Progress" because I feel that it is an absolutely necessary link in the chain of developments produced by the great minds constantly at work on new ideas to improve our phase of the industry, if those ideas are ever to materialize as useful methods. The object of these new ideas is, of course, to make our work in textile dyeing and finishing chemistry more efficient, of better quality, and more servicable to the production of attractive, satisfactory cloth to the final consumer.

In our over-all group we have many men at work constantly searching for facts about everyday problems as well as newer methods for greater efficiency in the production of the many and varied fabrics which this industry makes available for public use.

Generally speaking, we refer to these men as research chemists and physicists. True, they seldom are free to spend all of their time at this research; but they do produce a stupendous amount of real valuable and beneficial ideas. They are the originators, but, as so often happens, are not in a position or have they the necessary practical experience to put these ideas into everyday practice.

One outstanding error of our industry, particularly of the chemical industry, is to advertise and broadcast new developments with extensive claims before they have even been tried. Management is a little too eager to use these new methods and processes for sales development.

Much stress has been given in the last few years to research, and in trying to make it pay immediate dividends schedules have been established and time limits set for each problem. This is good and necessary, but the course is generally to start slowly and, in order to meet schedules, to speed them up reasonably at the end of the work, often to the detriment of the whole work. This premature advertising of new products and methods has caused us much trouble, and many good things have gone into disuse because they were not tried and proven.

On the one hand we have these research men as an important part of our Association and of the industry, and with them our group represents the practical men—the dyer and the finisher. These production men, whom we sometimes forget in the romance and adventure of new findings, have a great responsibility. It is their skill and their art that produces our fabrics with the utmost appeal and serviceability. They cannot fail; they must produce perfect goods with the minimum of time and at the lowest possible cost. Who can criticize them for strict adherence to tried and proven methods? Every new idea is a chance they must take. They do not have the time to investigate theories in detail and cannot possibly keep entirely in touch with all the developments the research group come up with. Even if they do make every effort to cooperate and keep abreast of the latest findings, the trials and errors involved in putting them into practice would risk ruining their production and often spoil their record of perfect quality.

Here we have these two groups of very important men — one developing new ideas, new methods, new theories, but with insufficient practical experience or available facilities to put them into production; and the other the production men who are too responsible for the results of their work to risk many new ventures. Consequently, we have a bottleneck to our over-all progress that turns aside, sometimes for years, many valuable developments and improvements.

The dye and chemical companies have done much to alleviate this situation by employing many fine, capable and experienced technicians to come in and work with the dyer and finisher. They have helped take over some of the responsibility, but still their work must interfere with production. Furthermore, these men, particularly the experienced ones, are entirely too few. Too often, I am sorry to say, these technicians have not had very much responsibility of production and use the mill as their laboratory for experience. Certain consulting laboratories supply this need also, and since our own company does just that, I must admit it is valuable. All of this is a help, but it is not enough. We are facing a big gap between the development and the final application of new principles.

I cannot help but feel that it is the responsibility of the production mills themselves to construct a bridge for this gap so that the flow of new ideas can proceed directly to production without handicap to prejudice or lethargy, without using our production machinery for an experimental laboratory or burdening our production men with untried processes. Furthermore, and I hope I can do justice to the importance of this point, this bridge must produce these valuable ideas in such form and with such assurance of success that, when it reaches the production side, there is no hesitancy on the part of those up to their ears in responsibility to carry on.

Too many times these production men have half-tried ideas thrust upon them, even by their own management, who in turn have been "sold" by some overzealous development group, which has caused them untold worry and perhaps actually loss of their job. This is wrong, and every dyer and finisher in this group knows what I am talking about. It is he who has to sweat out the practical application of these new ideas, and this without loss of production or detriment of quality.

Let me say right here they have done a swell job too. The co-operation of these production men has been great, and they have taken the "bugs" out of many new methods by their interest and enthusiasm. However, they still have their big responsibility, and, during my thirty years of experience in this business, I have seen many good ideas die an unnatural death because there was no bridge to carry

them to a useable and "sure-fire" production procedure.

Forgive me for a critical attack on this problem. It would be unjust and unfair if it were anything but an explanation of the need, and a basic reason for my answer to its solution. I am not bringing to light anything new, or even untried, but I do not think the idea has been completely explored.

Essentially, it is use of a pilot plant if you can use a term employed in the chemical field. Much has been done, particularly abroad, in this direction, and several large companies here have at least some sort of small-scale experimental equipment. This is all helpful and should be utilized fully, but it is not enough to aid our whole industry.

The day of secrecy in our work is over. We must work as a team to keep pace with the needs of today's problems. I therefore refer not to individual facilities or private or unknown proving grounds, but to open and widespread pilot plants where the results are available to all and where the individual problems of anyone can be considered on their own merchandise. They should not detract, but rather become an adjunct to individual facilities. If all plants had pilot plants of their own extensive enough to cope with this problem, it would be a terrific expense to the industry as a whole; and since they would be for individual benefit and more or less secret work, a terrific duplication of effort would be involved.

Where should these pilot plants then be located to be most useful to the whole industry so that all can utilize them to prove their problems? Who is going to pay for this expense?

Let me consider this last item first, since it is the first thought of management. Any solution to this must be unified and equal to all since the burden of expense would be too great and unequal if supported by a few. Management should add to their costs a certain predetermined figure to compensate for this expense and co-operate to share this expense in proportion to production. I cannot give a detailed formula for this, but, if handled, for instance, by the various associations, such as the National Association of Woolen Manufacturers, and the Cotton Manufacturers' Association, it might possibly be well proportioned. Our own Association could likewise function in directing some of this allocation. It should, however, be a unified effort with all sharing proportionately. This may be difficult, but, if those interested made good use of such facilities, others would soon follow. If such a plan is unworkable, then it can be done by a few and those will be the ones to benefit. If this is done, the expense must be governed by the work done and the results be made available only to the sponsor of each project.

Now, where to locate such plants? Perhaps eventually our own Association can build one, or some industry-wide co-operative plan can be conceived, but I am afraid that is not in the cards at present.

There is, however, at least a pretty satisfactory nucleus of such pilot plants already in existence. They are pretty well equipped and facilities are gradually being made for their use. Here they have a great amount of experimental equipment, much of it modern and in good condition, but essentially it is not utilized to any great extent. I refer to our textile educational institutions. Actually, they have a vast display of useful, modern equipment of various sizes and capacities, most of it sitting idly by as sort of museum pieces to occasionally instruct the students in certain principles of operation. I refer also to more or less recent facilities which have come into being by the establishment of research foundations in most of our technical schools. Here is the contact, the means of starting such a program, and our own Association could well provide the technical assistance required to put this to work by establishing a trained force to operate this equipment. The cost of such an operation should be sufficient not only to pay for the actual expense of operation, depreciation of equipment and overhead involved, but to provide a surplus for new and improved equipment and possibly defray other overhead expenses of our educational institutions.

The greatest obstacle in the use of this more or less idle pilot-plant equipment is the question of who will operate it? Here we must have the best men with years of responsibility who have proven their ability and skill. They must be capable of working out all practical aspects of the problem, be entirely responsible for the equipment, and produce the final finished process in a finished form with all untried difficulties worked out to satisfactory conclusion. Furthermore, it should be demonstrated by these men to the production men who are to use it, so that they will be satisfied entirely with its workability.

The textile manufacturers themselves should support such a program and the staff necessary to operate it as part of their overhead costs. They should rely on these pilot plants to produce workable procedures on their own material and, finally observed by their own production men. In my opinion they would save themselves many times its cost by thus utilizing this idle equipment.

Where better can a student learn than to see this equipment actually run, perhaps to actually run it himself at times? However, we must not, in such a program, think of thrusting such a responsibility on the already overloaded faculty of our technical schools. They can be utilized as consultants and advisors as part of the program, but the actual operation must be by a trained staff of experienced dyers and finishers. Our own Association can furnish such needed men on full or part-time basis.

Much meeting of minds would be required to make best use of such a program, but if you agree that pilot-plant operation would be a help by providing new methods, products or fibers, before dumping them in the lap of the dyer or finisher, at least I think you must admit the idea has some possibility. Personally, I think the occurrence of ulcers among dyers and finishers would be greatly reduced.

If I have not bored you too greatly by my discussion of the pilot plant as an aid to progress, I would like to take just a few minutes more to mention a few of the problems of woolen dyeing, which are still the same problems I found when I started working on them thirty years ago. Honestly, I must admit they are just about as unsolved today as they were then. This proves that my life's work has been wasted, if one cares to look at it that way. There are several, but I will bore you with only three because they are somewhat related in the fact that psychology is involved in all three.

First, and this is the bugaboo of all woolen dyers and finishers, is shady goods. Woolen mills all have shady goods. Sometimes they are bad; sometimes they are barely perceptible; and at other times they think they don't have them until some fine day the customer calls their attention to the fact, and suddenly the whole mill is in a turmoil. We go to work on it, and if it is really bad can sometimes help it, but what I mean to stress here is that the mill seems to have to suffer about as much before it can make up its mind it is back in good production again. I have viewed literally thousands of so-called "shady goods" and I cannot stand before you and tell you that I am sure of the tolerance or dividing line which makes goods acceptable or rejected. Of one thing I am sure, customer demand has an important bearing on the subject. When business is good I see the tolerance quite wide and everyone happy with production high, and when the market is off there is actually not only no tolerance but perfect goods are rejected as shady. Of course, we really do have honest-to-goodness shady troubles, but they can usually be located in the dryer or carbonizer, sometimes in the wet finishing and, of course, since I am really a woolen dyer, I cannot admit they are ever found in the dyekettle.

Second of the problems is shade tolerance. When is a shade acceptable as a match or rejected? We have here the

same variable tolerance as in the first problem and generally for the same reason. No dyer can produce perfect matches all exactly alike. What, then, is his expected tolerance? The best dyer will look over a group of his own dyeings and admit there is more variation than he expected. Sometimes he is criticized and sometimes he is praised for the same tolerance as far as he can see.

Third, is the problem of fastness of color, particularly light fastness, since this seems to be the greatest point of indecision. We have spent years in the development of accelerated methods and machines to perform this test in minimum time, but we still argue as to what is barely perceptible, appreciable, or badly faded. You all know how badly this is kicked around, regardless of the very excellent work done by William Appel, Charles Seibert, Hugh Christison, and others.

Now, these three are in one way related as far as the poor dyer is concerned. He never knows who has to be satisfied and, even if he did, he could not depend on a consistent tolerance.

After all these years of seeing these same three problems relatively unsolved, I believe we are on the verge of their solution. Work is in progress by our own Color Committee, which may give us a yardstick to measure with unquestioned exactness, how shady is shady, how close is a match, and how much does it fade. Then the manufacturer can stand firmly and feel more sure of the exact quality of his dyed material. We have the means of measurement, and I hope our Committee will be successful in proving its authenticity.

I have tried to interest you, and, for fear that I have not been too successful, I will draw this talk to an end by again repeating my sincere appreciation of the honor you have conferred upon me. If I have contributed to the welfare of this great organization, I am very happy—it has been interesting and fascinating. In fact, my life's work has been all fun. I am happy to say that my son has also decided to make it his life's work and, as a member of this group, is here today. You have already heard from him in a few articles in the *Dyestuff Reporter* and in sectional talks, and I am sure he is ready and willing to take his place among you and do a better job for this Association than his dad has done.

I cannot close without mentioning my wife, not just because she is here but for the help and comfort she has given me over more years than she will allow me to mention, in sharing our troubles together. Our son and daughter are our greatest joy in life and we are both very proud of them.

May I take just a moment of your time to read a verse from a poem found in my father's desk, which I have also cherished. The author is anonymous:

There are certain dreams I cherish
That I'd like to see come true
There are things I would accomplish
Ere my working time is through.
But the task my heart is set on
Is to guide a little lad,
And to make myself successful
As that little fellow's Dad.

I thank you.

MEETING OF THE WESTERN NEW ENGLAND SECTION
MARCH 19, 1954
RAPP'S RESTAURANT, SHELTON, CONNECTICUT

Photos by
Alfred N Henschel

1953 Annual Convention——

ANNUAL BANQUET*

THE Banquet Program of the 1953 Annual Convention was called to order at 9:00 PM by Eric W Camp, Chairman of the Convention Committee.

Chairman Camp: Ladies and gentlemen, I take pleasure in presenting to you the Chairman of our Mid-West Section, Alfred J Olson, for our opening remarks.

Sectional Chairman Olson: Mr Toastmaster, Mr President, members and guests, we of the Mid-West Section consider it a privilege and an honor to be your hosts. All committee members have done their best to make this an outstanding meeting.

It is our fervent hope that your attendance has profited you in learning about the improvements constantly being made in our industry. We hope you have enjoyed the hospitality of this Mid-West Section, which has grown a great deal since your last visit in 1947 and since our founding in 1928.

The meetings of our section are planned a year in advance, usually three technical meetings each season and an outing in the Spring, the dates for which are announced in the *American Dyestuff Reporter.* We always welcome visitors to sectional meetings, which are often held in different cities, such as Milwaukee and Cincinnati as well as Chicago.

I now have a few words to say to our Convention Chairman, Eric Camp. Mr Camp, it is my pleasure to present to you a gift from the Mid-West Section in appreciation of the marvelous job you have done to make this national convention an outstanding success.

Chairman Camp: Thank you very much. My success was due rather to the efforts of my Committee Chairmen members who put this thing across. I would like to introduce those gentlemen to you. Without their splendid co-operation and fine efforts, this wouldn't have been as good as it was.

First is the Assistant General Chairman, Joseph H Jones, who volunteered to take care of hotel reservations and prevent a repitition of 1947. You all know how well he has succeeded. The man who handled the technical program so well was Elliott Morrill. The credit for handling the exhibits without the help of an agency was Samuel Klein, and Jack G Kelley gets the credit for the fine publicity we have had.

It was estimated that we would have a preregistration of nine hundred and a total registration of twelve hundred. E J Sindt, who managed registration so well, tells me that our preregistration was actually eight hundred ninety-seven and the total, twelve hundred and twenty-three.

C M Clevenger headed the Reception Committee and J Gordon Stott, the Printing Committee. William Boyd managed the good time enjoyed by the lady guests, and Frank F Myers took care of dining. Victor C Braun handled the money, L B MacFarland headed the transportation activities, and George B Chabot did splendidly with entertainment activities.

The Chicago Committee has subpoenaed our National Vice-President, Samuel L Hayes, to be our Toastmaster. I therefor present to you Samuel Hayes.

Toastmaster Hayes: I want to thank Alfred Olson for his greeting; and through him, I extend to the Mid-West Section our appreciation for a fine convention. Formal appreciation for the Association will come from President Bob Bonnar.

This is a most unusual convention. One of the unusual things is that, for the first time in many years, it has been possible to house all the delegates in one hotel. Your Committees have done a fine job; and we look forward to returning in four or five years.

* * * * *

After several amusing stories, the Toastmaster called the names of all those at the head table except those who would speak later. They included the following:

William O Appel	Past President (1944-46)
C Norris Rabold	Past President (1950-52)
P J Wood	Past President (1931-32)
Fred Knight	Past Pres, CATCC, Quebec Section
George L Baxter	Corporate Member Chairman
Percival Theel	Publications Chairman
H W Stiegler	Director of Research
A E Sampson	Assistant Treasurer
G O Linberg	Vice-President
Arthur Brainerd	Vice-President
H C Chapin	Secretary
Roland E Derby	1953 Olney Medal Winner
Leonard Little	Chairman, Executive Committee on Research
Charles W Dorn	Chairman, Technical Committee on Research
Cecil O Urquhart	President, CATCC, Ontario Section
C Russell Gill	1954 Convention Chairman
Carl Z Draves	Past President (1940-41)
Henry F Herrmann	Past President (1947-49)

* * * * *

Toastmaster Hayes: Once a year the members of the American Association of Textile Chemists and Colorists have the opportunity of hearing their President address them. That time has now come.

Borowing a thought from General Electric's television program prompts me to say that progress is our most important point. If you should pick out one trait of our President, it would be that years ago he appreciated the value of progress. Never has he been one to let well enough be sufficient. Progressive action has always been his most important asset. He is a New Englander by birth, education having taken place at MIT, and he plays some golf, smokes good cigars and usually keeps me supplied at these conventions with good cigars. He has had several years of plant experience, many years with General Dyestuff Corporation, of which he is now dyestuff sales manager; and he has served on many research committees, has been chairman of the General Research Committee, of the Executive Committee on Research; and only those who have had the good fortune to work with him realize the amount of time that he has spent on Association activities.

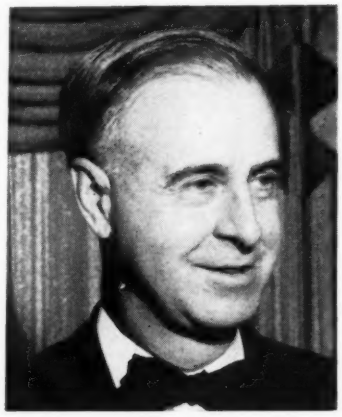
He is now serving his first term as president, has been nominated for his second term without opposition; and he well deserves to be president. He well deserved to be renominated.

I present to you Mr J Robert Bonnar, President of the American Association of Textile Chemists and Colorists.

* Held in the Grand Ballroom of the Conrad Hilton Hotel in Chicago on Saturday evening, Sept 19, 1953. Submitted to the Reporter by the Editor of Proceedings on March 22, 1954.

Banquet Principals

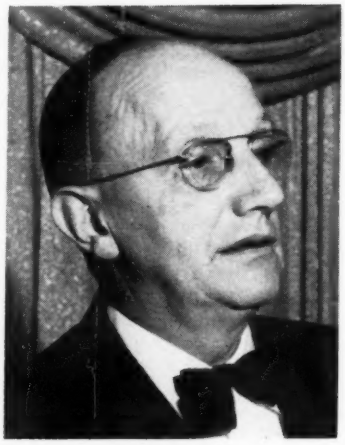
J R Bonnar
President's Address



E W Camp
Presiding

A J Olson
Greetings

S L Hayes
Toastmaster



P Theel
American Dyestuff Reporter Award

F J O'Neil
Award of Intersectional Contest Prizes

A C Van Dusen
"You Can be Successful and Human Too"

PRESIDENT'S ADDRESS

THANK YOU, Sam; and, unless some of my outspoken friends and critics get disturbed, it is not a speech — it is a pleasant duty to talk about this present convention, which is rapidly coming to a close.

I know that each year someone stands up and says "This is the best one, fellows, we ever had." I presume that can be varied in the minds of the individuals who have been to very many; and so I won't say this is the best one that I have ever been to. I really think it is one of the few best, without a doubt; and from most standpoints in my mind, it is the best — but as I say, some people have different viewpoints, and so you can't really say that — but it is a pleasure to say that a convention is good when it runs smoothly — and this has really run as smoothly as anyone could wish it.

It is impossible to name people by name, because you all know that one chap gets left out — and you just forget him somehow or other. You don't mean to; and so I would like to say officially from the Council and from the Officers and the members and friends who attended, Eric and Joe, you have done a very marvelous job; and will you please pass on to the members of your Committees, the workers behind the scenes, our thanks for the way this has run?

We have seen here, at this convention, another first. The first that I speak about is the Junior Intersectional Contest. We had that this year officially for the first time; and it is nice to see. We all know that, some years ago, it was a tough struggle to get the Intersectional Contest underway for the senior members. We also know, without my saying so, what a wonderful success it has been.

I am sure, and the rest of the boys who have worked on it are sure, that the Junior Intersectional Contest will turn out to be just as good and perhaps better from some standpoints.

Just stop and think on the way home, without my enumerating and taking time, what it means to these young fellows in school to mix with you folks to see how serious you are when you go about research development, engineering and so on.

There is nothing that can be done in the schools that could really complete with the type of thing they get here. The school has its place; and we have ours — and we are all very glad to see it.

As I said, I have no speech, but I have a few papers that I put inside the auditor's report here. The first one is a telegram reading as follows:

"The Council of the Society of Dyers and Colourists sends you best wishes, in which I join, for a successful convention." This is signed by the President of the Society of Dyers and Colourists. It is a pleasure to see that they take note of our convention, and we appreciate their telegram. They would have had somebody over here if it had not been that they are having a counterpart meeting at just about the same time as this.

I would like to take this opportunity to officially thank all of the members of the staff, so called, at all places. They are doing a very fine job. They do not wait until they are told how to do this or how to do that from some voluntary committee. They try to co-operate where they can; and they think for themselves at the same time. That is fine. That is marvelous. I would also like to thank the four Vice-Presidents. We have had the country broken up into regions; and so, instead of two Vice-Presidents, we now have four. It is working very nicely. They are getting started; and as time goes on, the work will increase, and it will also work even better.

On down the line with all of the various Committees, here again it is impossible to put all the names in — and it isn't fair to name anyone without naming them all — but the various working Committees are doing a splendid job.

There is one Committee that has been at work for some months now — a new Personnel Committee. Perhaps you have heard or read something about it. We have no intention and will stop any intention of having any new personnel take away from the voluntary work of this organization. It is the fighting blood of the organization, and it should not be replaced, and can't be replaced, and it will not be replaced in any way, shape or form.

I say that because some people have worried a little bit. Should we add to the staff in any way, shape or form, it is our intention and expectation that will add to increase the voluntary work and not lessen it in any way.

There are several other things that have been done that I would like to call your attention to. There is the matter of the research work. The research committees have increased by leaps and bounds with new types of committees. We have had to split the load. We have changed the by-laws so that this has been made possible; and we think it is going to be a much smoother working organization.

In the last year or two, we have come into our own from the standpoint of other organizations doing somewhat the same type of work, not exactly, but coming to us and allowing us to go to them and form joint committees. We have had several government groups come to us and ask if we would help on this and help on that. They do not take these things and publicize the fact that they have come from us, the American Association of Textile Chemists and Colorists. However, they do come back to us with their criticisms or comments, and then accept it as a government test.

There is much of that going on. It not only pleases us to have the government do that — but the part that really pleases us is that you have the same type of testing then from the government that you have from the American Association of Texile Chemists and Colorists, so you do not have to worry about two, three or four various types of tests.

You remember that you have seen, and I hope you have done something about the ads in the *American Dyestuff Reporter* on the monographs. That is a wonderful thing, not because your Association is doing it, not because we will make $1.10 per copy to add to money for research, but because those books are put out by the men of your Association who have their feet on the ground. They are not people who have decided to publish a book because they want somebody to know who they are. They have really put their life blood into the publication; and they know if the younger people or others coming into the organization were or are not quite as familiar as they are — they know they can read that book and get something out of it. It is not just a bunch of something on paper. It is really worth everybody's while. It is put out at a very low price so that the young fellow out of school, the young fellow just starting, can buy it.

Sam mentioned the fact we have somewhat over seven thousand in membership. That is a very fine thing; but as we see it, as officers, we feel that we cannot keep up the tempo, probably. We have grown in importance in the eyes of industry. We have grown in the eyes of the men in the plants, and so they have become members. They have learned to get something out of the meetings, out of the *Dyestuff Reporter*, and so on — but it doesn't seem possible that we will increase the next five years at the same rate as we have in the past five years.

Toastmaster Hayes: Sometimes I think it is just too bad that we don't have more opportunities to hear our President talk to us.

Percival Theel's Committee have had a tough job. That job has been the task of selecting the outstanding paper published in the *American Dyestuff Reporter* during the year. Umpires are never popular — and how they tied it down to one paper is beyond me — but, fortunately, that is Percival Theel's story. I will present to you now Professor Percival Theel, who will announce the winner of the 1953 American Dyestuff Reporter Award.

AMERICAN DYESTUFF REPORTER AWARD

Professor Percival Theel: This is the third year in which we have had this award through the generosity of the *American Dyestuff Reporter*. The award is for the best paper published in the *Proceedings*, either read before the Sections or contributed. It does exclude, however, the Intersectional Contest papers.

In granting this award, we have a Committee of three judges working with the Publications Committee. Those Judges are Professor Phelps of the University of Minnesota, John Dalton and Alfred MacCormac. I have a letter here from Professor Phelps of that Committee, which states as follows:

"The unanimous choice of the Committee for the American Dyestuff Reporter Award was the paper entitled "Principles of Copper Dyeing of Polyacrylonitrile Fibers; the Controlled Redox-potential Method" by R H Blaker of the Jackson Laboratory, E I du Pont de Nemours and Company. This was published in the *American Dyestuff Reporter*, Volume 42, Number 3, February 2, 1953, pp 76-80.

At this time, it is my pleasure to present Doctor Blaker the prize of a check for $200.00.

* * * * *

Vice-President Hayes: It might well be asked, what holds the American Association of Textile Chemists and Colorists together? What makes it click? Why do twelve hundred to two thousand people attend our conventions year after year? One answer is the companionship, the renewing of old acquaintanships, and perhaps certain extracurricular activities. Another is the exhibits, and the opportunity to meet and discuss problems with people in your own line of work.

Then there are the technical papers; and not the least of the technical papers is the Intersectional Contests, increased this year by the Student Intersectional Contest.

This year, under the inspiring leadership of Frank O'Neil, the quantity and quality of the papers reached a new high. Frank is serving a dual role this year. He will announce both the winner of the Intersectional Contest, and also the winner of the Student Intersectional Contest. Frank J O'Neil.

AWARD OF INTERSECTIONAL CONTEST PRIZES

Frank J O'Neil: First, I will announce the students contest. We have two student chapters represented here tonight. You know we have chapters in almost all the Sections at the various schools with textile departments; and these two boys have presented these papers that they are here to receive prizes for in the Sections that they belong in. Of course, nobody knows who is first prize winner and who is second prize winner, as we have two prizes this year; so I would like to present the first prize winner first — and that is Lonnie T Howard.

Lonnie T Howard: All I can say is, "Thank you very much."

Frank J O'Neil: James M Polito, second prize.

James M Polito: Thank you very much.

O'Neil: The other contest is the Senior Intersectional Contest. It has been held for several years. I was going to say that for the benefit of the ladies, I should explain it — but I have observed many of the ladies here that have been here before — and so I will make this short.

During the year from perhaps January on, the various sections have committees that prepare these reports. They get together, do a lot of work; and at the end of the year, we have this contest. This is the hardest contest we have ever had to decide on.

I can recall in 1940 where the work was not too exciting; and we had to work very hard to get them to do anything; but it is utterly amazing how much work they do now. I will announce the winners in reverse order so that we can give proper recognition to the winning section.

The third prize winner is then Philadelphia. Second place goes to the New York section, and first place goes to the Rhode Island Section. I will ask Dr Parks to come up here. Congratulations to Rhode Island for being the first prize winner — and for heaven's sake, George, tell them what you have on.

W Geo Parks: I don't believe it is appropriate at this time to describe this shirt. It is not necessarily a prediction of what the young men will be wearing in sport shirts next spring; but it does represent the technical or scientific aspects of the Rhode Island Intersectional Contest paper this year, which was on the light fastness of direct dyes — and if you will look at the shirt, you will notice that there is considerable fading here, and no fading here — and for the benefit of the ladies, this means more, obviously, than this does. At the bottom, they are just reversed of what they are at the top. All jokes aside though, the Rhode Island section is very humble tonight, and at the same time very proud, of our accomplishments.

I represent the Rhode Island Section, and, more directly, the Intersectional Contest Committee of that Section. We have had a lot of fun during the past year; and I speak rather for the Committee than for myself, because, after all, they did the work.

Let me say that we are very happy and very proud to have won the contest this year. I hope it will not discourage the other sections. I think you realize, as I do, that this is one of the most important functions that is sponsored by the American Association of Textile Chemists and Colorists. All I can say is that I wish to thank you a lot, and let's see how we make out in Atlanta next year. Thank you.

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Toastmaster Hayes: When you look at that shirt, you can see what I mean when I said we have come a long way since Eve's second garment.

At one time at this convention, it was planned and wisely planned for history to repeat itself. Some five years ago in Augusta, Georgia, it was my pleasure to be the Toastmaster. It was my pleasure and my privilege to introduce that night, as our guest speaker, our dear friend Hugh M Comer; and the Chicago Committee had aranged for Mr Comer to be here tonight, as you know.

Unfortunately, yesterday afternoon word was received from Hugh Comer that, because of a sudden bereavement in his family, he was unable to be here. That explains why, on the platform tonight on my right, we have a substitute tonight for Mr Comer. We do not have an alternate speaker; we have rather a man who can speak in his own right. I regard him as a relief pitcher called in by manager Eric Camp from the bull pen, and I use the word "bull" only in its relationship to baseball.

Our speaker tonight is not a substitute. In that connection, I might state that we have in this country six percent of the land in the world, seven percent of the population, eighty-

five percent of the automobiles, fifty percent of the hospital beds, thirty-four percent of the world's meat, ninety-two percent of the world's bath tubs, forty-five percent of the world's wealth — but all that we have in land is six percent and seven percent of the world's population — and the answer as to why that is, is that we produce. But where do we get the people who do the producing? Those people must come from our educational institutions. They must be trained in our colleges and in our universities; and that is the function of our speaker tonight in his daily vocation — and I shall introduce him to you as a producer of producers.

Our speaker is Vice-President and Director of Public Relations of Northwestern University. He is an associate professor of psychology. He is a good old Southerner born in Tampa, Florida, not far from where I was born in Georgia. That speaks well for him. We have already established kinship, which any two good Southerners can do without the slightest provocation.

He received his BS Degree at the University of Florida, his MS there, and his Doctor's Degree at Northwestern University; and, like most men of his age, somewhere in between the acquiring of these various degrees, he performed his service for his country. He is a consultant alongside psychological lines for many large industrial companies. I am very happy to tell you, according to him, he is a psychologist, not a psychiatrist. You do not have to go to sleep to listen to him tonight.

In introducing our speaker, I want to thank him for being here. I present Doctor Albert C Van Dusen, who will speak to us tonight on the subject of "You Can Be Human and Successful, Too." Doctor Van Dusen.

* * * * *

Albert C Van Dusen then presented his address, which was at the same time amusing, instructive, and inspiring. Since his words, however, did not directly concern the activities of the AATCC, they will not be repeated here.

REPORTS FROM THE LOCAL SECTIONS

Pacific Southwest

THE March 26th meeting of the Pacific Southwest Section was held at the Gourmet Restaurant, Beverly Hills, Calif, with 37 members and guests present, at which time Clarice Lindsey, University of California, presented her research paper entitled "Laboratory and Wear Study of Whiteness Retention and Soil Removal in Selected Fabrics of Satin and Crepe Weave".

The Chairman, Sidney Springer, called attention to the all-day symposium to be held on May 19th at the Hotel Statler, New York.

The Secretary reported on the results of a questionnaire which had been sent to forty-one members who are regularly in attendance at the meetings. The poll was an effort to determine the group's preference as to location of a meeting place or places. Sixteen persons of the twenty-two who returned the questionnaire voted to meet at the Beverly Hills Gourmet. This was three times more votes than were cast for any of the other places suggested.

It was decided that regular meetings in the future would be held on the last Friday of every other month The speaker for the May meeting will be a representative of the Beckman Instrument Company, South Pasadena, Calif.

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Philadelphia

THE Philadelphia Section held its last regular meeting of the season on April 9th at Kugler's Restaurant, Philadelphia, Pa, with approximately 153 members and guests in attendance.

Featured speaker of the evening was Jules Labarthe, Mellon Institute of Industrial Research, on the subject "Ten Thousand and One Consumer Complaints".

Jack A Adams, Parr Engineering Co, followed Dr Labarthe's talk with a brief discussion of the activities of the Section's Stream Pollution Committee, of which he is chairman.

The Section will hold its annual outing on May 21st at the Manufacturer's Golf and Country Club, Oreland, Pa.

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Washington

THE final meeting of the season of the Washington Section was held April 9 at the National Institute of Drycleaning, Silver Spring, Maryland. The meeting featured a symposium on the cleaning of textiles. George Fulton, director of research for the Institute, introduced the following speakers:

Anthony Schwartz, Harris Research Laboratories — "Some Principles of Detergency"

Albert R Martin, National Institute of Drycleaning — "Drycleaning of Textiles"

Suzanne Davison, U S Dept of Agriculture — "Some Problems in Home Laundering"

A highlight of the meeting was a conducted tour of the Institute's laboratories and plant which also included the facilities of the National Institute of Rug Cleaning. Approximately 60 members and guests attended.

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New York

A meeting of the New York Section was held on Friday evening, April 9, 1954 at Kohler's Swiss Chalet, Rochelle Park, New Jersey. An informal dinner preceded.

The Chairman, Weldon G Helmus, appointed the following nominating committee to report at the May meeting: Paul J Luck, chairman, Henry L Young and George L Baxter. The Chairman requested those who had not paid their dues to do so. He referred to the all-day symposium to be held on May 19th at the Hotel Statler, New York. He thanked the members, officers, and committee chairmen for their cooperation during his two years as Chairman.

Chris W Farrell, chairman of the outing committee, stated that the outing would be held on June 18th at the North Jersey Country Club.

The Chairman referred to the sudden passing of Robert Burns of Celanese Corporation who died in South America on April 7th.

John F Warner, vice president of D B Fuller & Co, Inc presented a paper entitled "A Review of Textile Shrinkage Control Processes and Test Methods".

The attendance was approximately 200.

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Northern New England

THE 29th annual outing of the Northern New England Section will be held June 11, 1954, at the Merrimack Valley Country Club, Methuen, Massachusetts.

The outing will be an all-day event and activities will consist of a golf tournament, soft ball game, and horseshoe pitching contest. A buffet luncheon will be served from 11:30 AM to 2:00 PM and dinner will be served at 7:00 PM.

The following members of the section have been appointed to the outing committee:

Chairman—John Ploubides; Chairman Ex-Officio—Ernest R Kaswell; Soft Ball—Joseph E Travers; Horseshoes—Henry Rooney; Prizes — Mike Lane, Chester Brown; Publicity—Edward M Lynch, Jr, F J O'Neil; Golf—Joseph A Bryant, William Schmottlach, John Ormiston, Julius Jarek; Dining—Edward B Bell, John R Markgren; Program—Azel W Mack, John F Sheehy; Finance—Chester Kopatch, Phil Graham; and Music—Harold Kaswell.

NEWS

D S Moss

C W Kuhl II

T Larson

• Carbic-Moss Corp Formed

The formation of Carbic-Moss Corp, which combines the selling division of Carbic Color & Chemical Co, Inc, New York, and Dyer S Moss Co, Inc, Charlotte, N C, has been announced.

District managers are as follows:
New York—John Nissl
Charlotte, N C—Edward Grayson
New England—Thorwald Larson
Columbus, Ga—Thomas Davis
Philadelphia—John Linton
Hamilton, Ont—J Travice Broadbent
Los Angeles—Hathaway Allied Products

The new corporation, with general offices and laboratories at 2511 Lucena St, Charlotte 6, N C and 451-453 Washington St, New York 13, N Y, will represent exclusively the products of Carbic Color & Chemical Co, Inc, which include Pharmasols and Pharmols of the Pharma Chemical Corp, the Indigosols, and other imported specialties of Durand & Huguenin S A, Basle, Switzerland. Carbic-Moss will also be sole selling agents in the United States and Canada for Otto B May Inc, and Southern selling agents for Refined Products Corp and Pfister Chemical Works, Inc.

Officials of the new firm include Dyer S Moss, president; Carl W Kuhl II, executive vice president; and Thorwald Larson, vice president in charge of sales.

• CCNE Annual Dinner

The Chemical Club of New England held its Eighth Annual Dinner on March 25th at the Hotel Somerset, Boston, Mass, with approximately 450 members and guests in attendance. An entertainment committee, consisting of J R Johnson, chairman, R E Nippes and G W Mulligan, was in charge of the affair.

• Ahco Opens New Jersey Service Lab

Arnold, Hoffman & Co, Inc, Providence, R I, has announced the opening of a new sales service laboratory in Teterboro, N J.

The laboratory, which is located in the same building as Ahco's Teterboro offices, brings to a total of three the number of sales service laboratories now available for service to Arnold Hoffman's customers. Others are located in Providence and Charlotte, N C.

• Textile Engineering Div, ASME, to Meet May 21

The attack that the electrical industry is making on the problem of rising power costs coupled with increasing power needs will be described at the Spring meeting of the Textile Engineering Division, American Society of Mechanical Engineers at the Hotel Sheraton in Boston on May 21.

L A Runton, division chairman and director of engineering for Alexander Smith, Inc, has announced that four engineers who specialize in textile machinery drive requirements will chart the latest developments in that field.

Honor speaker at the luncheon session will be James H Hunter, vice president, James Hunter Machine Co, North Adams, Mass. He will report on "European Textile Trends and How They Affect American Mills."

Lindsay Dexter of Pepperell Manufacturing Co, Boston, will preside over the morning session. Chairman for the afternoon will be R M Jones, vice president, Saco-Lowell Shops, Biddeford, Maine.

• Canadians Consider Representation at Next ISO Meeting

The Advisory Committee to the Canadian Delegation to the International Standards Organization (Textile Committee 38) met in the boardroom of the National Research Council on Wednesday, March 24.

The Committee, which comprises a cross section of members from all branches of Canada's textile industry reviewed Canadian participation in ISO activities to date in regard to textiles and expressed the desirability of stimulating greater interest and participation in textile standards work. It was felt that by so doing the Canadian textile industry as a whole would benefit both in the domestic and foreign markets. The Committee also went on record as favoring the sending of two Canadian representatives to the ISO meeting which is to be held at Scarborough, England on June 4-5, if sufficient support can be obtained.

As at present constituted the Canadian Advisory Committee is composed of the following: L J Sheps (chairman), Trilon Chemicals Ltd; R W Kolb, Dominion Textile Co Ltd; B Wiener, Robinson Cotton Mills, Ltd; Harold Fisher, Dominion Textile Co Ltd; G C Tattersfield, Ayers Ltd; D Keefe, Canadian Cottons Ltd; L H Turl, Defense Research Laboratories; J Galbraith, Newlands & Co Ltd; E Sewell, Canadian Cottons Ltd; F D Wallace, Domil Ltd; H W McCartney, Guaranty Silk Dyeing & Finishing Co Ltd; J Kelly, Courtaulds (Canada) Ltd; R D Bennett, Canadian Industries Ltd; Norman J Abbott, Ontario Research Foundation; John L Isenring, Dionne Spinning Mills Ltd; Arne Greyborn, Bruck Mills Ltd; G H Carr, Julius Kayser & Co Ltd; Alan C Salter, Textile Sales Ltd; C E Coke, Courtaulds (Canada) Ltd; F H Emery, Sandoz Chemical Works Ltd; E V Burnthall, Kenwood Woollen Mills Ltd; H Palfreeman, Courtaulds (Canada) Ltd; W B Kitchen, Plymouth Cordage Co Ltd; C H Bayley, National Research Council; N L Staples, Ontario Research Foundation; D Wolochow, National Research Council; J I Armstrong, Primary Textiles Institute; E I Birnbaum, Hart Products Co of Canada Ltd; W R McCaffrey, Canadian Standards Association; R Wood, Grouts Ltd; and E Dawber, The Textile Technical Federation of Canada.

• 1954 Gordon Research Conferences

The 1954 Gordon Research Conferences, AAAS, which were established to stimulate research in universities, research foundations and industrial laboratories, will be held from July 12-16 at Colby Junior College, New London, N H. Meetings will be held from 9 AM to 12 Noon and from 7:30 to 10 PM, Monday through Friday, with the exception of Friday evening. The afternoons will be available for recreation, reading, resting, or participation in discussion groups as the individual desires.

Individuals interested in attending the Conference are requested to send in their applications to the director, on or before May 15. Each applicant must state the institution or company with which he is connected and the type of work in which he is most interested. Attendance at each Conference is limited to 100.

Requests for attendance at the Conferences, or for any additional information should be addressed to W George Parks, director, Department of Chemistry, University of Rhode Island, Kingston, Rhode Island.

The schedule for the Conference on Textiles follows:

TEXTILES

GEORGE S BUCK, JR, *Chairman*
J B GOLDBERG, *Vice Chairman*

July 12 —

T F COOKE — "The Mechanism of Wrinkle-Resistant Finishes for Cellulosic Fabrics."

HERMAN F MARK — "Recent Developments in the Synthetic Fiber Field in Europe."

July 13 —

ALLAN McQUADE — "Recent Work on Flame-Resistant Treatments for Textile Fabrics."

R H PETERS — "A Study of the Initial Stages of the Dyeing Process."

July 14 —

C B HAVENS — "Preparation and Properties of Fibers from Vinylidene Chloride."

ALEX BROWN — "Second-order Transition Temperature and Fiber Properties."

July 15 —

NILS GRALEN — "Fiber Friction at Different Velocities."

HERBERT G LAUTERBACH — "Felts from Man-Made Fibers."

July 16 —

NEWTON A TEIXEIRA — "A Theoretical Analysis of the Mechanism of Tongue-Tear in Woven Fabrics."

R C Persons

• Sun Chemical Co-ordinates Promotional Activities

For the first time in its 25-year history, Sun Chemical Corporation has coordinated advertising, marketing and public relations for its 32 divisions, and centralized all promotional activities within a single agency-client working arrangement.

Commenting on the announcement, made simultaneously with the appointment of G M Basford Company as the advertising agency, Ralph C Persons, president of the Corporation, stated: "The increasing diversity of our product lines and services . . . creates ever-new sales and marketing problems. We can meet and solve these problems most effectively by centralizing responsibility for all the Corporation's promotional activities. We have consolidated our many different products and the specialized selling organizations behind them into three general groups:—chemical; structural waterproofing, paint and products finishing; and graphic arts."

A complex network of 29 manufacturing plants, 30 warehouses, 85 distributors, and sales offices in 60 cities in the United States, Canada, and Mexico, Sun Chemical Corporation manufactures and markets a variety of industrial and consumer products including, among others, textile chemicals; printing inks; wax; printing machinery; protective and decorative finishes; waterproofing materials and water repellents.

• Cyanamid-N J Zinc Contract

In a joint statement last month by American Cyanamid Company and The New Jersey Zinc Company, it was announced that the two companies have entered into a contract under which the zinc company will purchase the Cyanamid Company's Gloucester City, New Jersey, titanium dioxide plant. The plant will be turned over to the zinc company after Cyanamid's new and larger titanium dioxide plant at Savannah, Georgia, now under construction, has been completed and placed in operation. It is expected that this turnover will be made some time the latter part of 1955.

• Hilton-Davis Officials Feast on Rare "Delicacies" at Explorers Club Banquet

Two executives of The Hilton-Davis Chemical Co, Cincinnati, joined a host of fellow-explorers and other notables in sampling an "explorers smorgasbord" at the 50th anniversary banquet of the Explorers Club in New York's Waldorf Astoria Hotel on March 19.

Hilton-Davis' Nelson S Knaggs, vice-president in charge of sales, and Ross M Hastie, vice-president in charge of purchasing, attended the affair at which such explorers' "delicacies" as fried termites, pickled worms and crocodile eggs comprised part of the exotic "smorgasbord." Both men are members of the Explorers Club.

A veteran of six expeditions, Mr Knaggs returned last summer from a trip to the Isthmus of Tehuantepec in southern Mexico, studying the ruins of the ancient Olmec civilization. Mr Hastie has explored Alaska and parts of southwest United States for rare jade deposits.

A long list of notable explorers and other celebrities participated in the golden anniversary celebration. Heading the famed group were Matthew Henson, last surviving member of Admiral Peary's expedition to the North Pole; Prince Peter of Greece, an anthropologist; and Lowell Thomas. Others present were Admiral Richard E Byrd; Werner von Braun, rocket authority; Generals Nathan Twining and James Doolittle, and Admiral H Rickover, builder of the first atomic submarine.

A feature of the occasion was the collection of 150 exotic foods donated for the banquet by explorers in the field. In addition to the termites, worms and crocodile eggs, there were: seaweed salad, rattlesnake meat, polar bear, dried yak, walrus, caribou, seal and octopus tail.

Perhaps the most unusual dish was "fried shoe laces", the proverbial last supper of the lost explorer. It dates back to the time when starving Arctic explorers stewed and ate their shoe laces.

• Standard Shades for Color-Spun Dynel

The eight standard shades of "color-spun" Dynel staple fiber for production by the Textile Fibers Department of Carbide and Carbon Chemicals Company, a Division of Union Carbide and Carbon Corporation, New York, include black, navy, brown, tan, green, yellow, grey and light blue. Other colors are under development and will be added if the demand justifies their production.

The designation "color-spun" for the colored fiber is used to differentiate it from natural Dynel. The normal properties of Dynel reportedly are not changed by the coloring process.

National Adhesives (Canada) Representatives Inspect National's Alexander Research Laboratory.

• National Adhesives (Canada) Holds Annual Conference in New York

To obtain an exchange of ideas on sales, technical service, development problems and advancements on adhesives, resins and starches, National Adhesives (Canada) Ltd, a subsidiary of National Starch Products Inc, New York, recently held their annual sales conference in New York.

Executive, sales and technical personnel of the Canadian company attended the two-day meeting. Attending the meeting from Canada were:

A R Meredith, Sr
E Hofman
B V Schaub
M Archambault
G Bennett
A J Best
L R Binmore
A Bourke
G W Burgoyne
J Kelly
J A LaRose
A R Meredith, Jr
W A Sharpe
M J Stasko
K Talgoy
G W Teakle
C Toka
C Westover
G F Wright

Before turning over the meeting to group discussions, Frank Greenwall, National's president, briefly described the progress of the two companies and future plans.

Also included on the program, was an inspection tour by the entire group to National's Alexander Research Laboratory in Plainfield, N J.

• 2nd AWS Welding Exposition

The American Welding Society will stage its second Welding & Allied Industry Exposition at the Memorial Auditorium, Buffalo, N Y, May 5-7, during the time of the society's National Spring Technical Meeting, which will be held at the Hotel Statler in the same city.

The society's first show, held in Houston, Tex, last year, attracted key executives from more than 20 industrial fields. The Buffalo exhibit will be almost twice as large and the attendance is expected to be more than three times as great. More than 100 exhibitors are expected and the products of more than 300 companies will be shown.

Every type of welding equipment and most accessories will be on display. Exhibits will include equipment for manufacturing and structural purposes, as well as for maintenance needs. Considerable emphasis will be placed on welding techniques for the newer metals. Many automatic welding processes also will be featured.

• Latest Avcoset Licensees

Latest licensees under the Avcoset program of quality control of washable fabrics include Weil and Schoenfeld Fabrics, Inc, New York; Rock Hill Printing and Finishing Co, Rock Hill, S C; M Lowenstein & Sons, Inc, New York; The Old Fort Finishing Plant, Old Fort, N C; and The Greenville Finishing Co, Inc, Greenville, R I. There are now 28 converting firms licensed under the program, and 16 finisher licensees.

• Sinclair Chemicals to Market Synthetic Fiber Raw Material

Plans for broadening its petrochemical activities by marketing a synthetic fiber raw material, para-xylene, were announced recently by Sinclair Chemicals, Inc, a subsidiary of Sinclair Oil Corporation.

Para-xylene and other aromatic chemicals will be produced as part of a program to expand petrochemical production at the Marcus Hook, Pa refinery of Sinclair Refining Company. A special unit will be built to recover para-xylene from a new catalytic reformer already under construction at the refinery.

Initial operation of the para-xylene unit, which reportedly will have a capacity of 10 million pounds a year, is scheduled for the first quarter of 1955.

Sinclair has contracted to supply para-xylene to The Hercules Powder Company, which has announced plans for a plant to convert the para-xylene to dimethyl terephthalate for use by Canadian Industries, Ltd in the production of its Terylene synthetic fiber.

As part of the aromatics expansion program, Sinclair will also produce toluene (a component of aviation gasoline and TNT), xylene solvents, and heavier aromatics.

A sizeable sulfur producing plant and synthetic detergent raw material producing facilities are already in operation at Marcus Hook. Odorless solvents and other petrochemicals are produced at Sinclair's Houston, Texas refinery.

W C Hardesty Co, Inc plant, Belleville, N J

• Hardesty Moves Headquarters

W C Hardesty Co, Inc, has moved its main offices to new and larger quarters at 25 Main Street, Belleville 9, N J.

According to F G Merckel, president, the move to more spacious quarters is in line with current expansion of the firm's research facilities, sales staff, and overall production program.

The company is observing its 28th year in the fatty acid and chemical fields.

• Potential New Markets for Cotton Outlined

Economical chemical modification of cotton, to give it added resistance to wrinkling and creasing, more resiliency and greater heat-, mildew- and abrasion-resistance will open potential new markets for more than one billion yards of cotton fabrics, according to a recent prediction by Leonard Smith, director of utilization research for the National Cotton Council.

Speaking before a luncheon meeting of the Textile Section of the New York Board of Trade at the Arkwright Club, Dr Smith listed four modifications, either in commercial use or under intensive laboratory study, which promise, with further refinements, to make cotton "progressively more versatile through induced specialization." These include treatments for crease resistance, partial acetylation, a new method of flame proofing and a new treatment to improve abrasion resistance, particularly of denims.

Improved crease-resistant finishes for cotton, he said, have improved to the point "where cotton fabrics are no longer limited to women's dresses but are also being used in women's suitings and men's sport slacks. Before long, we dare say, they will find their way into men's suitings."

He said a special Cotton Council Market and technical study of crease resistance indicated a potential market on the order of 500 million yards, provided the cost of the treatment does not exceed 10 cents per yard. The biggest opportunities would seem to be in men's suits, coats, and trousers, about 210 million yards, and in women's coats, suits, dresses, and skirts, about 150 million yards, he added.

The added resiliency, Dr Smith declared, would enable cotton to compete for the position of the rug market now held by wool and rayon, in addition to holding onto its own rug markets.

"Certain assumptions are necessary to serve as the basis for our estimates. Ours were: (1) that the treatment will achieve for cotton resiliency equivalent to that of wool; and (2) that there will be no damaging effect on other desirable cotton properties," Dr Smith said. "The extent to which we realize the potential, of course, will be influenced by the extent that we achieve the assumed conditions, as well as such other factors as the promotional efforts made to capitalize on the technical accomplishments."

He declared that partial acetylation, which is said to give to cotton fabrics a lower electricity conductivity, and greater resistance to heat, mildew and, to a lesser degree, to acids, should open new markets for awnings and canopies, about 25 million pounds; shoe linings, about 40 million pounds; fishing supplies, about 30 million pounds; electrical insulation in the form of motor and transformer windings and separators, about 100 million pounds; laundry supplies, about 60 million pounds; and tents and tarpaulins, about 60 million pounds.

Dr Smith further declared that the THPC flameproofing process, developed at the Southern Regional Research Laboratory, may create a potential market of as much as 200 million yards, assuming the cost is not more than 10 cents per yard. The principal uses would be in curtain and drapery fabrics, awnings, tents and tarpaulins. He pointed out that service tests are now under way to determine the value of the new treatment to improve the abrasion treatment of denims "by nature's most destructive force — small boys."

• New PTI Scholarships

New scholarships recently provided the Philadelphia Textile Institute include the Berthold Strauss Scholarship from the Moss Rose Mfg Co, Philadelphia; the Leon Birnbaum Scholarship from Native Laces & Textiles, New York; and a $3000 support scholarship from the Hubshman Foundation, Inc, New York.

• SOCMA Heads Discusses Current Tariff Policies

The "myth" of high tariff was the subject of a speech on April 8 by Carey R Wagner, president of the Synthetic Organic Chemical Manufacturers Association. Speaking before the Hudson-Mohawk Council on World Affairs, Dr Wagner said that U S tariffs are not high and that only seven small nations throughout the world have tariff rates which average lower than U S import duties. On all dutyable imports U S Tariff rates average 12.5%, Dr Wagner said. He added that more than half the total U S imports enter the country duty free.

Speaking for the organic chemical industry, Dr Wagner said that a protective tariff on chemical imports is absolutely necessary if the industry is to continue its remarkable contribution to U S economy. The organic chemical industry, he said, has spent nine billion dollars during the past nine years for new plants to keep pace with the demand for new chemical products. He predicted that the industry will spend a billion dollars during the next five years for research in the field of new chemicals and greater use of existing ones. This research, Dr Wagner said, will result in longer life and better health for all people, new and better industrial products, and will enable the Armed Services to hold their technological lead in modern military weapons.

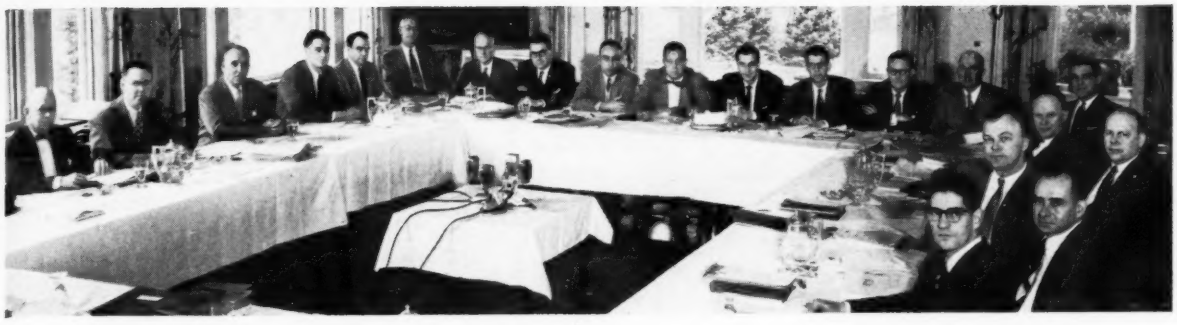
Comparing the American chemical industry with its foreign competitors, Dr Wagner pointed out that American research technicians are paid an average of $5700 a year as against only a few thousand dollars annual earnings by European scientists. The average American chemical worker, he said, earns $1.86 an hour in this country while his counterpart in France earns $.32 an hour; in Italy, $.30; in England, $.48; and in Germany, $.38.

United States industry, he said, cannot hope to compete with such wage differentials. If tariffs on chemicals are reduced, Dr Wagner predicted wide-spread unemployment in the chemical industry and sharp reductions in its research and expansion programs.

• "Ban-Lon" Trade-Mark Awarded

W R MacIntyre, president of Joseph Bancroft & Sons Co, announced last month that the trade-mark, "Ban-Lon" has been given to the yarn produced by an exclusive crimping process which his company controls. Bancroft has licensed fifteen companies to use the process, fourteen in this country and one in Canada.

Details are being worked out for rigid quality control of end-use products, and in the meantime, none of the licensees will be assigned the right to use the trade-mark name of "Ban-Lon," except on products which have been individually approved by Bancroft.



SHOWN here at one of the sessions of their 1954 Annual Sales Engineering Conference, Stowe-Woodward's sales engineers review with their research and manufacturing technicians the success of specialized roll coverings made for textile finishers in the past year and explore new developments and problems of rubber roll manufacture in connection with textile finishing. Left to right around their conference table are: Theodore T Ericksberg, Frederick L Phelps, Jr, Charles M Schermerhorn, Mark LaRue, Asa F Fisk, Roy Tewksbury, Howard H Jensenius, Edward S Greene, David G McRitchie, Jr, Clifford A Nichols (Huntington Rubber Mills, Inc, Seattle, Washington, Stowe-Woodward's affiliate on the West Coast), John D Retallick, Fletcher P Thornton, Jr, John D Dickson, Jr, William E Greene, Clarence Morganstern, W Bradford West, Charles B Blanchard, Roger P Arnold, John H Glander, Lewis J Schillo.

• ASA Group Approves Scope of New Project

The Consumer Goods Standards Board of the American Standards Association on March 30th approved the scope of a new project for "minimum requirements for all textiles." The National Retail Dry Goods Association was approved as sponsor of the project.

Several members of the Board, in discussing the project, have commented as follows:

"These standards are not intended to be a restriction on quality, rather they offer a floor on which to build".—Albert E Johnson, National Institute of Drycleaning.

★ ★ ★

"Using minimum requirements elevates the whole textile industry; their use does not affect brand labeling".—Leonard S Little, American Association of Textile Chemists and Colorists.

★ ★ ★

"These standards will enable the retailer to certify the consumer that he is getting exactly what he believes he is buying".—Jules Labarthe, National Retail Dry Goods Association.

★ ★ ★

"These requirements will establish a chain of confidence between the manufacturer, the retailer, and ultimately, the consumer".—Charles W Dorn, NRDGA.

Solomon Barkin of the CIO Textile Workers Union of America said: "I believe that some manufacturers who have thus far hesitated in pushing such a project, will realize that their hesitancies are only technical problems which can easily be resolved by the American Standards technical committee."

Frank Gorman, director of research, the United Textile Workers of America (AFL), told the Board that, through councils and discussion groups, workers and consumers were becoming aware of the vital importance of a set of American standards for all textiles. "The textile workers as a whole," Mr Gorman stated, "take pride in their product. These requirements will be beneficial not only to consumers and manufacturers but to employees as well."

• Textile Research Lab Dedicated at MIT

The Charles T Main Textile Research Laboratory of the Textile Division, Department of Mechanical Engineering, was dedicated at the Massachusetts Institute of Technology on March 6th. A memorial to the outstanding textile engineer who had been an MIT alumnus, instructor, and Corporation member, the laboratory will continue to pioneer in textile research and postgraduate research education. Its program centers about the evaluation and understanding of fiber, yarn and fabric properties and end use behavior, with primary emphasis on the applied mechanics and microscopy of textile structures and on quality control.

At the dedication ceremonies Professor Edward R Schwarz, head of the Textile Division, reviewed briefly the history of textile research at the Institute since 1872. Also representing MIT were Professor C Richard Soderberg, head of the Department of Mechanical Engineering, and Edward L Cochrane, dean of engineering.

Speaking on behalf of Charles T Main, Inc, an engineering firm established in 1893 by the late Mr Main, was his grandson, Charles T Main II. Colonel Frank M Gunby, a long-time associate of the company, reviewed the life and work of Mr Main, who died on March 6, 1943.

• LTI Professional Advancement Program

The 1954 Summer Session at Lowell Technological Institute will again feature a Professional Advancement Program in addition to the undergraduate credit courses and pre-college refresher courses, according to a recent announcement by Prof Ernest P James, director of the Summer School.

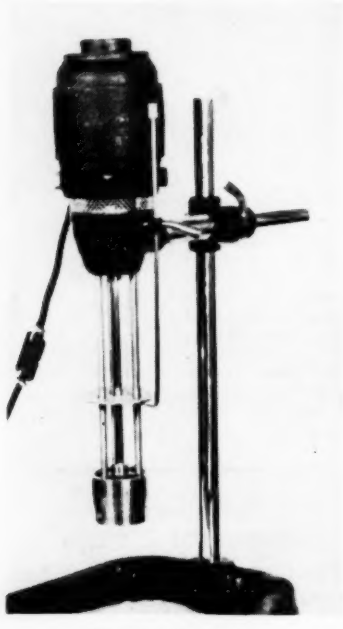
The Professional Advancement Program will consist of eight specialized courses during the period of June 15-July 16. It will include the annual *Textile Workshop*, a comprehensive course of the manufacturing processing and evaluation of modern textiles designed especially for industrial research personnel; *Fabrics; Textile Testing; Social Sciences; Woolen Carding and Spinning: Reused and Reprocessed Fibers; Paper, Its Properties and Uses;* and *Leather, Its Uses in the Textile Industry.*

• Graver Organizes New Department

H T Sulcer, general manager of Graver Water Conditioning Co, 216 West 14th Street, New York, has announced the establishment of a new Industrial Waste Department which will be headed by Robert J Keating.

Mr Sulcer points out that under the expanded program of the new department Graver intends to emphasize the diversity of its product line. The company is prepared to supply and service a wide variety of equipment for avoidance of stream pollution, re-use of processed waste water, recovery of materials from plant effluent, and the recovery of heat from waste water.

NEW PRODUCTS AND DEVELOPMENTS



Hermas Jet Mixer

• Hermas Offers "Jet" Mixers

Hermas Machine Company, Hawthorne, New Jersey, has acquired the rights to manufacture the "jet" mixers developed by the consulting chemist and chemical engineer, David E Gould, formerly vice president of the Barrington Engineering Company.

The "jet" mixers have been developed for the wetting out and deflocculation of dye and pigment dispersions in liquid-carrying vehicles in a wide range of viscosities. These are portable type, high-speed turbine mixers for mixing in tanks, barrels, drums and kettles, operating at peripheral velocities along the circumference of the rotor in excess of 70 ft-sec. It is claimed that exceptionally fine particle size reduction is obtained as the result of this extremely high peripheral velocity.

Special features in each "jet" comprise different pitch rotors to adapt to the pumping requirements for light, medium heavy and very heavy mixes; bushings constructed from stainless steel, nylon, or Teflon for the particular corrosion problem; adapter flanges for the motor mounting facilitating the use of the choice of motor horsepower for any given viscosity process; heavy duty and oversize shafts; bearings to permit carrying the load for motor horsepowers in excess of the minimum required; and easy accessibility to all moving parts for quick and thorough cleaning up between batches and colors.

Hermas "jet" mixers are made in laboratory, pilot plant, and production sizes.

• Chem Resin G

A new noncuring synthetic resin, Chem Resin G, patent pending of Chemical Products Corporation, Box 61, Little Falls, N J, is proving to be a versatile product in textile processing.

A water-white concentrate resin solution, pH 5, Chem Resin G is said to be stable and compatible in acid, neutral, and alkaline media. It is also said to be dilute and soluble in water and most organic solvents containing oxygen. The dried film reportedly is clear, colorless, odorless, lustrous, nontacky, and resistant to nearly all hydrocarbon solvents, greases, and oils. Its adaptability over a wide pH range and general compatibility are other features of interest.

As a finish it is said to increase the firmness, body, and strength of the fabric without discoloring or altering the shades. It reportedly penetrates well and adheres to synthetic fabrics, such as nylon and Orlon, as well as acetates. The manufacturer also suggests its use in warp sizing.

• New A-C Motors Developed by Reliance

A new line of protected squirrel-cage induction motors was announced recently by the Reliance Electric and Engineering Co, Cleveland, Ohio. The line, including protected and enclosed motors, is being built to recently adopted standards of the National Electrical Manufacturers Association.

Research in the fields of new insulating materials, ventilation, heat transfer and more efficient electrical designs by Reliance is said to have made possible greater horsepower in more compact space with equal and in some cases even greater liberality than in past designs. Research also is credited with having led to better protection of the motor windings, leads and bearings.

The first of the new Reliance motors to appear will be built for 1, 1½ and 2 horsepower applications, in frame sizes 182 and 184. The balance of the line, up to and including 30 horsepower, will be introduced at regular intervals during 1954 and the early part of 1955. The present Reliance a-c line will continue to be available during this change-over period.

• New Conductivity Cells Announced by Foxboro

A new series of electrolytic conductivity cells for use with Dynalog conductivity instruments has been developed by The Foxboro Company, Foxboro, Mass. The cells are designed for high and low conductivity measurements, detecting the concentration of acids, bases and salts in solution.

Foxboro Type GD Conductivity Cell

Low-conductivity cells (constants of 1, .1, and .01) are available in two types, both designed for insertion in a pipeline or a tank. One type includes a valve and fittings to provide for removal of the cell under pressure without interrupting the process. The electrodes are carbon and are said to require no platinization. They can be cleaned chemically or wiped with a cloth or brush.

High-conductivity cells (constants of 10 and 100) are also furnished in two types, one for insertion, the other a dip type for open tanks. The sensitive portion of these cells consists of two platinum electrodes in an H-shaped structure of Pyrex glass tubing. Cleaning is said to be simplified and fouling minimized by mounting the electrodes flush with the inside of the tubing. Cells may be temperature-compensated to prevent errors due to variable solution temperatures.

• New Series of Polyvinyl Acetate Emulsions

A new series of polyvinyl acetate emulsions, specially designed for textile finishing, has been announced by the Resin Division of National Starch Products Inc, New York 16, N Y.

According to National, these emulsions are ready-for-use, water resistant and produce clear, tough films possessing good resistance to drycleaning. In addition, the resins are said to show good compatibility with starches, synthetic and natural gums, clays, plasticizers, etc.

Potential uses in the textile field include nonwoven fabrics, carpets, upholstery, cotton sheeting, nylon hosiery and draperies.

NAMES IN THE NEWS

S E Tylee

G J Desmond

A Pfister

JACQUES WOLF & CO has announced the names of its three new top officers, following the recent death of its founder, JACQUES WOLF. SCHUYLER E TYLEE was elected president of the firm; GERALD J DESMOND, vice president, treasurer and general manager; and ARNOLD PFISTER, secretary and plant manager. Jacques Wolf & Co is a major supplier of chemical products for the textile, leather, food, drug and cosmetic, rubber, paper and allied industries — with plants in Clifton, Passaic, Carlstadt, and Los Angeles. The Company operates on a world-wide basis carrying on an extensive export and import trade.

J H Skinkle

T A Printon

E H Benzing

JOHN H SKINKLE has been named executive director of the Research Foundation of Lowell Technological Institute, succeeding BASIL G SKALKEAS who resigned on account of illness.

Professor Skinkle has been a member of the LTI faculty for the past twenty-seven years. In September 1951 he was named full professor and since that time has performed most of his duties in the graduate division; he has been a member of the Board of Directors of the Research Foundation since its inception in 1950.

Professor Skinkle will continue to serve as a member of the Faculty at the Institute.

HENRY PAPINI has been named executive vice president of Metro-Atlantic, Inc, Centredale, R I. Mr Papini, who operates from Greenville, S C, was formerly vice president of the firm.

Metro-Atlantic has indicated that plans are being made for the construction of a manufacturing plant in the South. Plans for the expansion of the main plant in Centredale are also being formulated.

THE Board of Directors of Nopco Chemical Company, at its annual meeting on March 25th in Harrison, N J, elected THOMAS A PRINTON chairman of the board as well as president of the company. As chairman of the board, he succeeds CHARLES P GULICK. In recognition of Mr Gulick's long and distinguished service to Nopco, the board designated him as honorary chairman.

Mr Printon has been with Nopco since 1922. He has served as director of the company since 1936, and has held the office of president since 1949.

THE following appointments in the Research and Development Division, Wyandotte Chemicals Corp, have been announced: PHELPS TRIX, manager of development department; RONALD A GRAHAM, manager of contract research; ARTHUR B ASH, project supervisor in charge of all contract chemical research; DAVID J CRAIG, project supervisor in charge of all contract physical research; and JOHN T PATTON, section head, organic research department.

ERNEST H BENZING has left the American Bemberg Corp and established a consulting service concentrating on dyeing and finishing problems on both synthetic and natural fibers. He will make his headquarters at present at his home Borden Place, Little Silver, N J or 112 Fair Haven Road, Fair Haven, N J.

Mr Benzing had been with American Bemberg for 22 years and handled technical sales and complaints and acted as trouble shooter. He began his career with the Continental Color & Chemical Co, United States representative of Badische Anilin & Sodafabrik which later became a part of General Dyestuff. From there he went to National Aniline at its research and dye application laboratory in Buffalo and also represented the firm two years in South America. He was subsequently with F P Maupai Dyeing Co in West New York, N J and with Hasco Dyeing Co, silk skeiner and piece dyer of Weehawken, N J, before joining American Bemberg.

Mr Benzing is a member of AATCC, AATT, Committee D-13 of ASTM, and the American Chemical Society.

THE results of the 1954 election of officers for the American Oil Chemists' Society, which met in San Antonio, Texas, April 12-14 for its annual meeting, have been announced as follows:

President—C E MORRIS, Armour and Co

Vice President—W A PETERSON, Colgate-Palmolive Co

Secretary—R W BATES, North American Laboratory Service

Treasurer—A F KAPECKI, Wurster and Sanger Inc

Three members-at-large, also elected for the coming year, are H C BLACK, Swift and Co; J J GANUCHEAU, Southern Cotton Oil Co; and J C KONEN, Archer-Daniels-Midland Co.

Serving with the most recent past presidents as the governing board of the Society will be PROCTER THOMSON, Procter and Gamble Co (1953); E M JAMES, Lever Bros Co (1952); J R MAYS, JR, Barrow-Agee Laboratories Inc (1950); and V C MEHLENBACHER, Swift and Co (1949), who will hold over for one year on account of the death of A E BAILEY (1951).

THE following appointments have been announced by Food Machinery and Chemical Corporation:

Westvaco Chlor-Alkali Division — WILLIAM L DAVIDSON has been named research director and WILLIAM B ROSE, manager, Development Department. Prior to joining FMC on January 1, 1954, Dr Davidson was for 3 years director of the Office of Industrial Development, Atomic Energy Commission. Mr Rose was formerly assistant technical director of FMC's Westvaco Chemical Division.

Westvaco Mineral Products Division— A G AITCHISON has been named manager, Development Department, and C BURKE MILLS, research director. Mr Aitchison joined Westvaco in 1935 and has served as technical director since 1941. Dr Miles, who joined Westvaco in 1946, has been director of the Newark, Calif, section of the Research and Development Department for the past seven years.

OBSERVING 35th service anniversaries with the Linden plant of General Aniline & Film Corporation, JACKSON J AYO, a research associate in the company's Process Development Dept, and ERNEST KUHN, superintendent of the plant's Sulfur Colors, Surfactants and Iron Carbonyl Powders area, were honored recently at a luncheon in the plant cafeteria, MAX W LEVY, a research associate in Process Development who will observe his 35th anniversary shortly, was also an honored guest.

R E Workman

C O McNeer

M J Rhoad

THREE important changes involving management personnel of The Goodyear Tire & Rubber Company's Chemical Division have been announced.

R E WORKMAN has been named assistant to the general manager; C O McNEER has been made general sales manager; and M J RHOAD has been promoted to assistant to the general sales manager.

In his new assignment, Mr Workman will assist in the coordination of the research, development, production and sales phases of the chemical operation, while Mr McNeer will be in charge of all phases of selling chemical materials.

HARRY L DALTON, American Viscose Corp, and FREDERICK H SCHLOSS, Darlington Fabrics Corp, have been elected trustees of the Philadelphia Textile Institute.

IN a move designed to meet the increasing purchasing responsibilities of its Industrial Chemicals Division, American Cyanamid Company on March 8th announced the creation of the Industrial Chemicals Division Purchasing Department and the appointment of ROBERT C BROWN as Division purchasing agent. The new department will be responsible for procurement of certain division requirements for its several plants and will be functionally responsible to the Company's General Purchasing Department. Mr Brown had been purchasing agent for Jefferson Chemical Co, Inc, a firm owned jointly by Cyanamid and the Texas Co.

WILLIAM F PHILLIPS has been named assistant manager of the Division's Miscellaneous Chemicals Department. Associated with Cyanamid since 1922 Mr Phillips had been a technical sales representative for the firm's Heavy Chemicals Department prior to this latest appointment.

In the Manufacturers Chemicals Department, FRANK W MINER, JR has been named assistant to the Department manager, and BENEDICT F MELUCCI has become technical director. Mr Miner, with Cyanamid since 1947, moves up from technical sales representative; Mr Mellucci, with Cyanamid since 1946, was previously senior technical representative.

* * *

Cyanamid has announced several new appointments at its Stamford Research Laboratories as follows:

Plastics and Resins Dept — V V LINDGREN was named manager; R LINDENFELSER, resin development group leader; L E CADWELL, surface coatings group leader; H M DAY, reinforced plastics group leader; J A MELCHORE, thermoplastics group leader and J K MAGRANE, molding and bonding group leader.

Process Chemicals Dept—W H HORNE was named manager; C G LANDES, paper chemicals group leader; C S SCANLEY, applied surface chemistry group leader; A M SWIFT, chemical development group leader; and J M SALSBURY, textile chemicals group leader.

Synthetic Fibers Dept — N H MARSH was named manager; A CRESSWELL, fibers research group leader; and D B WICKER, fibers development group leader.

ARTHUR C HAYES of the School of Textiles at North Carolina State College has made a major contribution to Volume 12 of the Encyclopedia of Chemical Technology, soon to be published by Interscience Encyclopedia, Inc.

The veteran N C State faculty member has written the encyclopedia's entire section on silk — a subject in which he is an authority.

E W Eipper

E WILLIAM EIPPER, formerly associated with the Oronite Chemical Division of Standard Oil Company of California, has joined the Market Research and Development Department of Stauffer Chemical Company and associated companies. He will be responsible to PAUL BRALLIER, director of market research and development, and will make his headquarters in San Francisco.

A BOOK about the stock market, written by EDGAR S GENSTEIN, president of Kem Products Company, Newark, N J, has received critical review from top reviewers, including Burton Crane of *The New York Times.*

The *Newark Evening News* says that Mr Genstein, a manufacturing chemist, has applied to the movement of stock prices "the objective analysis one might make in studying chemical compounds".

The book, "Stock Market Profit without Forecasting—A Research Report on Investment by Formula Plan", offers original plans for computing relationship stock prices to normal value, to determine whether stocks should be bought or sold. Mr Genstein is said to have successfully delineated the major buying and selling zones. The book has been published by Investment Research Press, South Orange, N J; cloth $3.50 postpaid; xx 86 pp.

ARTHUR MENKE of Deering, Milliken & Co, Inc was elected chairman of the Warp Knit Fabric Manufacturers Group of The National Federation of Textiles, at the Group's annual meeting held on April 8th. He succeeds JOHN P HOLMES, Celanese Corp of America, to the post.

Elected to serve with Mr Menke for the coming year were KURT J WINTER, United Merchants & Manufacturers, as vice-chairman, and five additional members to serve as the Executive Committee, as follows: Mr Holmes; SEYMOUR SAHLEIN, Frank Ix & Sons; HERMAN MELTZER, Meltzer Textile Corporation; HUGH J BEARD, Burlington Mills; and WILLIAM D SCOTT, JR, Blue Ridge Textile Company.

W C Buffing, Jr

THE appointment of WILLIAM C. BUFFING, JR, as controller of National Starch Products Inc, has been announced by Frank Greenwall, president.

Prior to his new appointment, Mr Buffing was treasurer for Simmonds Aerocessories, Inc, Tarrytown, N Y.

THE Drug, Chemical and Allied Trades Section, New York Board of Trade, Inc (DCAT) has announced the appointment of the following Nominating Committee: LLOYD I VOLCKENING (The Ivers-Lee Co), *chairman;* HAROLD C GREEN (Strong Cobb & Co, Inc), CHARLES M MACAULEY (Charles M Macauley & Associates); ROBERT B MAGNUS (Magnus, Mabee & Reynard, Inc); and C P WALKER, JR, (van Ameringen-Haebler, Inc). CLAUDE A HANFORD (Pharmaco, Inc) and STANLEY I CLARK (Sterling Drug Inc) will be ex-officio members of the committee.

It is the duty of this committee to prepare a slate of the new Executive Committee which will be presented for election at the 64th Annual Meeting of the DCAT to be held at Pocono Manor Inn, Pocono Manor, Pennsylvania, September 23-25.

HOOKER ELECTROCHEMICAL CO, Niagara Falls, N Y, has promoted HARRIS C MILLER from sales representative in the New York District to assistant district sales manager of the company's New York district sales office, and FRANK W LONG has been transferred from the research and development department to sales development group of the sales department.

Mr Miller came to Hooker in 1941 and was assigned the process study group of the operation department. Dr Long came to Hooker in 1953 as a chemist in the plastics and resins group of the research and development department.

RICHARD B SCHNEIDER, vice-president in charge of the Chemical Department, Empire Trust Co, New York, has been elected to the board of directors of American Alcolac Corp, Baltimore, Md.

A Carter

ALFRED CARTER, a member of the Providence Sales Service Laboratory, Arnold Hoffman & Co, Inc since joining the firm in 1949, has been named to head the new Teterboro (N J) Sales Service Laboratory.

GEORGE M WALKER, who for the past two years has been primarily engaged in planning and advising on the future growth of Koppers Chemical Division, has been named vice president and general manager of that Division.

Mr Walker succeeds DAN M RUGG, who died unexpectedly on March 28

APPOINTMENT of R CURT HASENCLEVER as director of the newly established Department of Research and Fabric Development has been announced by F Schumacher & Company, New York, N Y.

Mr Hansenclever has been associated with the firm since 1912, most recently as head of the special order contract division. In the new position, he will direct investigations and studies of new fabrics and yarns, continue work he has been doing in the development of new fabric finishes, and take charge of fabric testing. In addition to research, Mr Hasenclever will direct training of Schumacher sales personnel. He will also handle requests for textile lectures received by the firm.

DOW CORNING Corporation has announced the appointment of NORTON C FOSTER as manager of textile industry sales, and GORDON E McINTYRE, manager of the Washington Office. Part of Dow Corning's current expansion program, textile industry sales will be located in New York, and will be primarily concerned with sale and promotion of silicone finishes to textile fabric finishers and garment manufacturers.

Mr Foster, who for the past year has served as manager of the Washington office, joined the corporation's technical sales staff in 1948. Mr McIntyre has been with Dow Corning since 1947.

NEW officers of the Consumer Goods Standards Board, American Standards Association, are: *Chairman*—EPHRAIM FREEDMAN, Macy's Bureau of Standards; *Vice Chairman*—CHARLES W DORN, J C Penney Co; MRS ANDREW P COPE, American Association of University Women; and ALBERT E JOHNSON, National Institute of Drycleaning.

WALTER J HAMBURGER, president of Fabric Research Laboratories, Boston, Mass presented the 1954 series of Commonwealth Lectures at Lowell Technological Institute earlier this month on the general subject of "Aspects of the Engineering Design of Textiles".

GEORGE C RAMEY has joined Deering, Milliken & Co, Inc's Fine Goods Department. The appointment coincides with the Company's plans to further expand their combed cotton production of better dress goods and shirting fabrics.

Mr Ramey was formerly sales manager of Grosvenor-Dale Co, Inc, which has suspended operations.

OBITUARY

PIERRE SAMUEL du PONT

PIERRE SAMUEL DU PONT, industrialist, philanthropist and head of the du Pont family, died unexpectedly on April 5 in Memorial Hospital, Wilmington, Del, after having been stricken at his home near Kennett Square, Pa. He was 84.

Mr du Pont acquired E I du Pont de Nemours & Co, Inc at the turn of the century with his two cousins, Alfred I and T Coleman du Pont. They began the transformation of the company, already 100 years old, from a maker of black powder to one of the greatest chemical enterprises in the world, with more than 90,000 employees and 145,000 stockholders. Pierre du Pont was a director and honorary chairman of the board of the company at his death.

Another American corporation, General Motors, was organized early in the century by Mr du Pont and his associates. Mr du Pont became interested in the possibilities of the automobile industry during World War I, when that industry was in its infancy. As a result of his recommendations, the du Pont company invested substantially in the stock of General Motors in 1918 and 1919. Mr du Pont was elected president of General Motors in 1920, succeeding W C Durant. Mr du Pont turned the president's office over to Alfred P Sloan, Jr, in 1923 but continued as chairman of the General Motors board. He resigned the chairmanship in 1929 but remained as a member of the board until 1944.

C WALTER KUHL

C WALTER KUHL, 76, chairman of Carbic Color & Chemical Co, New York, died on March 25. Born in Germany, Mr Kuhl joined Carbic at the age of 13.

A graduate of the Philadelphia Textile Institute, Mr Kuhl was one of the first to manufacture dyestuffs in the United States following World War I. He was a member of the New York Section, AATCC.

Mr Kuhl is survived by a son, Carl W Kuhl II; three sisters, Lillian, Mrs J A Klein and Mrs J A McGarity; and two brothers, Herbert J and Horace Kuhl.

WALTER F FANCOURT, JR

WALTER F FANCOURT, JR, 71, president of W F Fancourt Co., Philadelphia, died April 12th at Hahnemann Hospital.

Widely known throughout the textile industry, Mr Fancourt was celebrating his 50th anniversary in the industry this year. He entered the industry in Oct, 1904, and since 1908, his firm has been located at the same address, 516 South Delaware Avenue.

Mr Fancourt was a member of the American Association of Textile Chemists and Colorists and past president of the Oil Trade Association of Philadelphia.

For many years he was associated with a wide list of Shrine activities. From 1929 to 1930 he was Potentate of Lu Lu Temple, AAONMS. He was Emeritus Member of the Imperial Council, AAONMS; past president of Lu Lu Temple Country Club; life member of Roxborough Lodge #135; member Philadelphia Shrine Club; Delaware County Shrine Club, Northeast Shrine Club, Philadelphia Consistory, 32-degree Scottish Rites, Corinthian "Chasseur" Commandery No. 53, Melita RA Chapter No. 284, and Royal Order of Jester's Court #72. Additionally, he was a member of the Union League Club of Philadelphia.

Surviving are his widow, Harriet Seltzer Fancourt; three children, Walter F Fancourt, III, John L Fancourt, and Mrs Edythe Morris; two brothers, Edwin J and T Herbert. Mr Fancourt's sons are officers of the W F Fancourt Co.

Services were held April 16th at Andrew J Blair & Son Funeral Home, Philadelphia.

JOHN'H GREER

JOHN H GREER, vice president and plant manager of the Monroe Chemical Co, Quincy, Ill, died last month at the age of 61.

Born in Lawrence, Mass, Mr Greer attended Lowell Technological Institute. After moving to the Mid-West, he lived in Quincy for 35 years and was very active in community affairs.

Surviving Mr Greer are his widow, Louise, and a cousin, Betty Rogers.

ROBERT BURNS

ROBERT BURNS, 47, director of technical and customer services for all Latin American affiliates of Celanese Corp of America, died recently while on a business trip in Caracas, Venezuela.

A prominent figure in the textile wet processing field, Mr Burns joined Celanese at the Cumberland, Md plant following his graduation from the Lowell Technological Institute in 1928. He was transferred to the New York office in 1935, and served as liaison officer of the company for the dyeing and finishing trades.

Mr Burns is survived by his widow, Ursala, and a son, Robert, Jr.

DAN M RUGG

DAN M RUGG, vice president of Koppers Co, Inc, and general manager of its Chemical Division, died Sunday, March 28 at West Penn Hospital, Pittsburgh, Pa. He was 64.

Senior vice president of Koppers in point of service, Mr Rugg performed outstanding work in organizing an expanding the operations of the Company's Chemical Division. He joined Koppers in 1926 as a sales engineer, two years later being named vice president of the Company's Brooklyn Division.

In 1942 he was named vice president of Koppers Butadiene Division, which later became the basis for formation of the Company's Chemical Division. He was named vice president and general manager of the Chemical Division in 1946.

Under his leadership, the Chemical Division has expanded from the nucleus of the styrene plant at Kobuta, Pa, purchased by Koppers from the Government in 1946, to a considerably larger Kobuta installation; plants at Berkeley Heights, and Kearney, N J; Petrolia, and Oil City, Pa; and the new Williams Plant of the Chemical Division which went into full production a year ago at Port Arthur, Texas.

He is survived by his widow and two children, Dan M Rugg, Jr, and Sally H Rugg, both of Pittsburgh.

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